S. HRG. 99-58, PT. 3

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1986

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

ON

S. 674

TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEAR 1986 FOR THE ARMED FORCES FOR PROCUREMENT, FOR RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, FOR OPERATION AND MAINTENANCE, AND FOR WORKING CAPITAL FUNDS, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

PART 3

UNIFIED COMMANDS
BINARY CHEMICALS

FEBRUARY 27, 28; MARCH 1, 1985

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DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1986

WEDNESDAY, FEBRUARY 27, 1985

U.S. Senate,
Committee on Armed Services,
Washington, DC.

COMMANDERS OF THE UNIFIED COMMANDS

The committee met, pursuant to notice, at 9:05 a.m., in room SR-222, Russell Senate Office Building, Senator Barry M. Goldwater (chairman) presiding.

Present: Senators Goldwater, Thurmond, Warner, Humphrey, Wilson, Nunn, Exon, Levin, Kennedy, Dixon, and Glenn.

Staff present: James F. McGovern, staff director and chief counsel; Arnold L. Punaro, staff director for the minority; Jeffrey H. Smith, minority counsel; Douglas R. Graham, John H. Hamre, George K. Johnson, Jr., David S. Lyles, Gordon G. Riggle, and Carl M. Smith, professional staff members; Judith A. Freedman, Russell C. Miller, and Patricia L. Watson, research assistants; and Mary J. Kampo, staff assistant.

Also present: Gerald J. Smith, assistant to Senator Goldwater; Romie L. Brownlee, assistant to Senator Warner; Henry D. Sokolski, assistant to Senator Quayle; John L. Roddy, assistant to Senator East; Mark J. Albrecht, assistant to Senator Wilson; Allan Cameron, assistant to Senator Denton; Jeffrey B. Subko, assistant to Senator Exon; Gregory P. Craig and James Steinberg, assistants to Senator Kennedy; Charles C. Smith, assistant to Senator Dixon; Phillip P. Upschulte, assistant to Senator Glenn; and John Sheridan, assistant to Senator Levin.

OPENING STATEMENT BY SENATOR BARRY GOLDWATER, CHAIRMAN

Chairman Goldwater. The meeting will come to order.

I apologize for being a little bit late, I haven't a good reason, so I will not come up with one. [Laughter.]

The committee meets this morning to continue our review of the fiscal year 1986 defense authorization bill. This morning's hearing is the first in a series of three at which we will hear from our operational commanders or CINC's, short for commander in chief.

These gentlemen bring a unique perspective to the defense budget, as they have the responsibility for implementing defense plans in various parts of the world should such action be required. Consequently, their views on the composition of the defense budget may not be identical with those in the Pentagon where the focus is often on defense requirements 5 or 10 years in the future.

We are very grateful to have with us this morning Gen. Paul Gorman, the commander in chief of the U.S. Southern Command; and Gen. Robert C. Kingston, commander in chief, U.S. Central Command.

This afternoon at 2 we will also hear from the commander in chief of the U.S. Atlantic Command, and the commander in chief of the U.S. Pacific Command. On Friday we will hear from General Rogers, Supreme Allied Commander, Europe, and General Nutting, the commander in chief of the U.S. Readiness Command.

Both our guests this morning are distinguished and highly respected officers. I am sorry to note that General Gorman has recently announced his intentions to retire from active duty. I can say, General, that your innovative leadership and candor are going to be missed; and if there is any way to keep you on duty, by God, we are going to do it.

I am happy to report, on the other hand, that General Kingston has not announced his retirement. [Laughter.]

It is obvious he is a much younger man. [Laughter.]

Gentlemen, it is a pleasure to have you with us this morning. We look forward to your testimony. You may put your testimony in the record, ad lib a bit, proceed to anything you want. The place is yours.

Senator **Warner**. Would the chairman yield for just a minute?

Chairman **Goldwater**. Yes.

Senator **Warner**. I am very pleased that the distinguished soldier, General Gorman, is retiring to Charlottesville, VA. I have been one of his long-time admirers.

Chairman **Goldwater**. I knew you would work him in there some way. [Laughter.]

Senator **Warner**. I am a long-time admirer, and I would associate myself with the remarks of our distinguished Chairman.

STATEMENT OF GEN. PAUL F. GORMAN, USA, COMMANDER IN CHIEF, U.S. SOUTHERN COMMAND

General **Gorman**. Mr. Chairman, I have brought with me today my successor in SOUTHCOM, Gen. John Galvin, who is sitting here, behind here. Jack will take command on this coming Saturday, March 2; and I can tell you that I am mighty pleased that he will be taking on my responsibilities. I have known him for years; I served with him in combat. He was my assistant division commander in the 8th Division in Germany. And he has one advantage coming to this job that I did not when I took it on, in that he has served extensively down in Latin America and speaks Spanish. I am confident he will be able, very quickly, to fit himself for all of the responsibilities that will devolve on him, a number of which I am going to comment on in a moment.

Mr. Chairman, this year I complete 40 years in uniform as a member of the active component of the Armed Forces, and my departure is in accordance with long-established policy in the Army in that this year I will reach both age 58 and my 35th year of commissioned service.

UNDERSTANDINGS AND ATTITUDES TOWARD LATIN AMERICA

I have been, as you know, the Commander in Chief of the Southern Command for almost 2 years, and this has been a period of great change in Latin America, and I believe great change here in the United States with respect to our understanding and our attitudes toward Latin America.

Two years ago, in April 1983, President Reagan in an address to the Nation outlined four basic objectives of U.S. policy in Latin America. I have taken these as my marching orders. He said at that time that it is our purpose there to support democracy, reform, and human rights; that we are there to support economic development; that we are there to support dialog and negotiations; and we are there to support security as a shield for democratization, development, and diplomacy.

And I think that the past 2 years have witnessed distinct progress toward all of those objectives. Concerning democracy, if you go back to 1979, two-thirds of the people in Latin America lived under military or military-dominated governments. Today, over 90 percent of the people in Latin America are living in countries with democratic governments. Since 1980 military juntas have turned back control of governments to civilians in 8 countries, and since 1980, 15 countries in mainland Latin America have held free elections. As I talk today, electoral campaigns are under way in Peru, Costa Rica, Honduras, El Salvador, and Guatemala.

All of these instances of democracy in action have contrasted sharply, in my view, with the parody that was enacted in Nicaragua this past fall, culminating in Fidel Castro's upstaging Daniel Ortega at the latter's inauguration.

If you look across the board, indeed, only in Chile, Paraguay, Suriname, Guyana, and Nicaragua in mainland Latin America does totalitarianism or authoritarianism govern in lieu of democracy. Nicaragua, of course, is the most acutely important case with respect to the President's goals.

As you know, in 1979, the Sandinistas pledged to the OAS and others to implant democracy in Nicaragua. Democracy there, sir, has never been given a chance. Day by day the Sandinista Comandantes tighten their grip on the population, bending to their will the political opposition, the entrepreneurial class, the ethnic minorities, the media, the church, the educational system, and the local public administrations.

And so the personalistic and arbitrary rule of the Somoza family has been replaced by a Marxist-Leninist garrison state modeled deliberately after Castro's Cuba. The Nicaraguan people revolted against a caudillo who stole their money, only to discover that they are now ruled by a cabal of venal men who have stolen not only their wealth but also their dreams of freedom.

It is no wonder, therefore, that more and more Nicaraguans have rallied to one or another of the rebel groups who constitute, as President Reagan has called them, the freedom fighters of Nicaragua.

Now, the other great drama of democracy in Central America is being staged in El Salvador. Despite seemingly insuperable adversity—and 2 years ago I was assured by all of the experts on the matter that there was little or no prospect for success in El Salvador—Salvadorans have brought into being a freely elected constitutional government. They have reformed their military and their legal systems; they have rectified significantly the maldistribution of land, and built new respect in their country for justice and human rights.

In my judgment, President Duarte has broken out of the stalemate of that war, and is now facing a dynamic situation in which for the first time since 1979, when this whole revolution got underway, democracy, prosperity, and security seem attainable.

Of course, Nicaragua continues to intervene in El Salvador, and the Salvadoran guerrillas, supported by the Sandinistas, form a formidable fighting force. Moreover, those guerrillas in their frustration are turning more and more to urban terrorism, kidnapings, rural minings, roadblocks, sabotage of the economic infrastructure. And all of this has had the effect of increasing civilian casualties.

SALVADORAN DEMOCRACY WILL TRIUMPH

But whereas last year when I appeared before you I was conditionally pessimistic about Salvador, this year I am guardedly—and I emphasize the word "guardedly"—optimistic that Salvadoran democracy will triumph. It will be a long, hard fight, but I believe that Duarte, if he continues to receive U.S. support, is going to make a go of it.

ECONOMIC DEVELOPMENT

Now, I am going to comment further on the implication of events in Central America for U.S. security, but I want to make a quick pass at economic development.

I have advocated to the Department of Defense interest in moving more of the defense production base into Central America. I believe that that would be consistent with the Caribbean Basin Initiative and with the Jackson plan. I am convinced that in countries like Panana, Costa Rica, and Salvador, even in Honduras, it would be possible to undertake, for example, a great deal more of defense-related electronics subcomponent assembly, the preparation of industrial fasteners, and other modest tasks for defense prime contractors that are now being performed elsewhere overseas.

The Central Americans would have the advantage of proximity, which is good from the point of view of cost, and it is good from the point of view of our strategic posture in the event of larger contingencies than those related to the region.

DIPLOMACY

I would like to make a comment on diplomacy. Mr. Chairman, I am one soldier who strongly approves of efforts to find a negotiated settlement of the conflicts in Latin America. I applaud our diplomatic insistence on verifiable arrangements which would provide equitability for all parties to the conflict there, including the Nicaraguan freedom fighters. But I would emphasize to this committee that there would be no dialog, no negotiations, no practicable diplomacy with the Nicaraguans were it not for those freedom fighters, and were it not for the U.S. military presence in Central America, which, as you know, has increased substantially over the past 2 years.

Mr. Chairman, somehow the Sandinistas have to be brought to a reckoning. When they came to power in 1979, their government included responsible men, moderate, respectable leaders who themselves believed that the Sandinistas would honor the commitments that they made to the OAS, commitments for elections, genuine nonalignment, respect for the sovereignty of their neighbors. But tragically, the Sandinista Comandantes have plunged recklessly onward toward the goals dictated by their Marxist-Leninist doctrine.

Under constant Cuban tutelage they have altered fundamentally the arms balance in the region; they have increased their forces sixfold over a period of 4 years; and the recent addition to their inventory of the MI-24 Hind hunter-killer helicopters, the armored helicopters used by the Soviets for the repression of the Afghan insurgency, is of particular concern to the neighbors of Nicaragua.

The Comandantes have also trained pilots to fly high performance fighters and allowed Cubans and other foreigners to install intercept radar and fighter bases in Nicaragua. The Comandantes have continued to support armed subversion against Costa Rica, against Honduras, and against El Salvador. They have played host to numerous terrorist organizations, providing an operating base for subversion throughout the Western Hemisphere. Radical Arabs of all types and other terrorists have found in Nicaragua a base for their operations in the Western Hemisphere.

The Comandantes have imposed universal conscription and have raised armed forces of well over 110,000, keeping half of them under arms at any one time. And in doing so, the Comandantes have ruined the Nicaraguan economy, made it ever more dependent upon the Soviet dole, and inter alia traffic in cocaine sales to the United States in order to generate hard currency.

NARCOTICS TRAFFICKING

And speaking of trafficking in narcotics, I should note that in Peru, Bolivia, Colombia, the level and intensity of violence associated with that activity has increased, and is becoming directly dangerous to Americans of all pursuits operating in those countries. And we are now seeing in those countries alliances being formed between the narcotrafficantes, with their hundreds of millions of dollars to spend, and the armed ideologues of Marxism-Leninism.

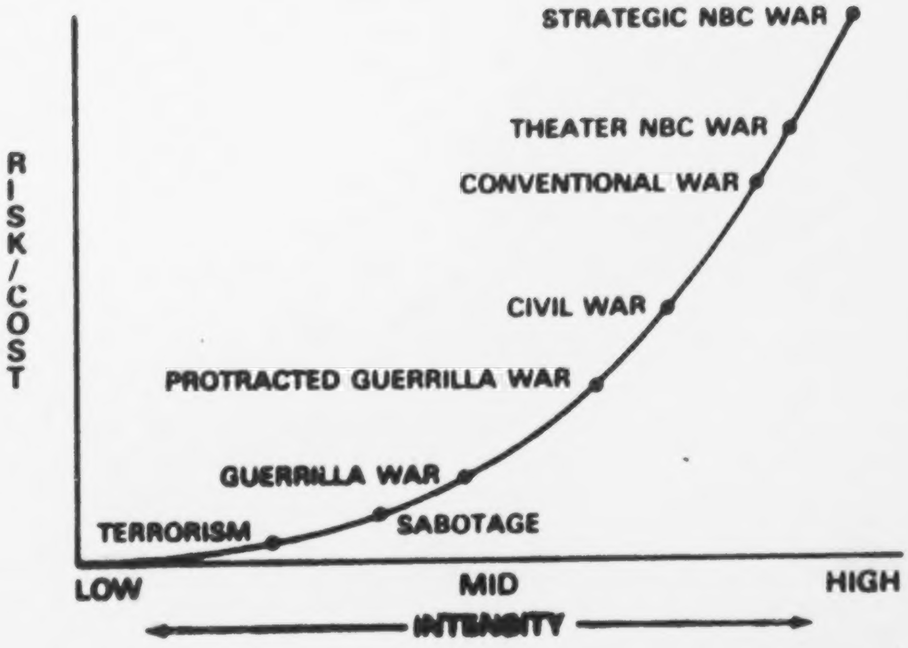
The combined efforts of the narcotrafficantes and these insurgents are threatening to rend the very fabric of the democratic societies of those countries. And neighboring countries, notably Ecuador, are being faced with similar incipient problems as the narcotrafficantes and the Marxist-Leninists spill their operations across international borders.

Now, with that brief resume of the situation that we face, I would like to comment on the readiness of my command to deal with this genre of problem.

I point out, as I did last year, sir, that mine is the smallest of the unified and specified commands by any measure: the smallest headquarters, fewest assigned or committed forces. But we have the resources of the U.S. Readiness Command and the U.S. Atlantic Command to draw upon. And so, while we are nominally small in the sense that the other CINC's will describe their size, I would not want you to feel that we are in any sense impaired by that relative size.

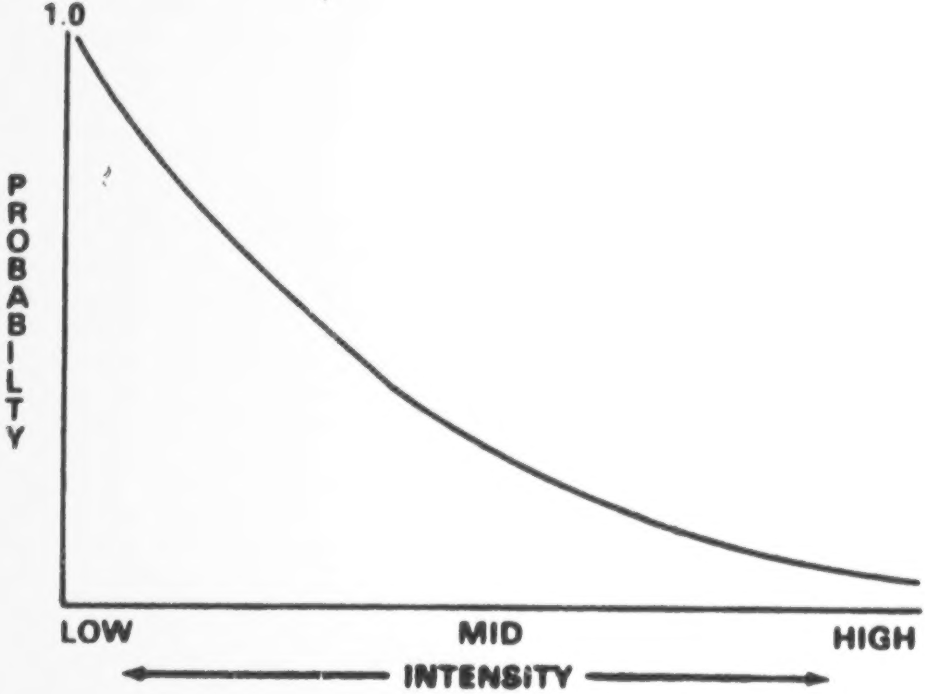
The committee, sir, is properly concerned with the readiness of U.S. forces to meet threats to U.S. national security. In Latin America these threats are somewhat different than they are elsewhere in the world, and therefore, the force requirements and the demand for readiness are different. And if I may, I would like to take a few moments to give you a brief view of the sort of representations that I have been making to my staff, to the commanders who are assigned to me for operations in Central America, and to the War Colleges about those very different requirements for readiness.

SPECTRUM OF CONFLICT



If I may, let me start here with a depiction of what I have termed the spectrum of conflict. It will be fairly familiar to everyone here in the room. I suggest that here is a way of looking at possible contingencies in terms of their intensity.

PROBABILITY vs INTENSITY



By the word "conflict" up here I am referring to the use of violence for political purposes, and the word "intensity" refers to the means used for those political purposes.

"High intensity" conflict, then, is that genre of wars in which there would be unconstrained use of available military forces and weapons. "Mid intensity" conflict implies limitations on the use of nuclear, chemical and other advanced weapons, but could entail employment of conventional military forces and weapons in a given region for specified purposes in which you would have very intense conflict, and a great deal of damage and casualties. "Low intensity" conflict as I use the term, in contrast, refers to situations in which the perpetrators of political violence resort to coercive crime, to sabotage, to subversion, to terrorism or to guerrilla warfare. For those cases, by present policy, the United States limits its military response to direct action by Special Operations Forces; to advising, or supporting a threatened ally; or to positioning U.S. forces to deter escalation of the conflict by third nations.

Nonetheless, whether you like this terminology or not, or would want to use it, I suggest that it is useful for talking about the readiness of U.S. Southern Command and other commands who are concerned with this lower end of the spectrum of war, with "low intensity" conflict, because, firstly, low intensity conflict is the form of political violence that we are most likely to encounter in my part of the world. Secondly, because as you remarked at the outset, DOD expenditures tend to be directed toward preparation in the future for less probable, albeit more dangerous, higher intensity conflict. And thirdly, low intensity conflict often requires distinctive material, or forces structured and trained differently from those for higher intensity conflict.

Chairman GOLDWATER. Pardon me, General. Might I ask just one question?

TERRORISM

Although you have terrorism down at the low end of the spectrum, would that not apply any place in that graduated scale?

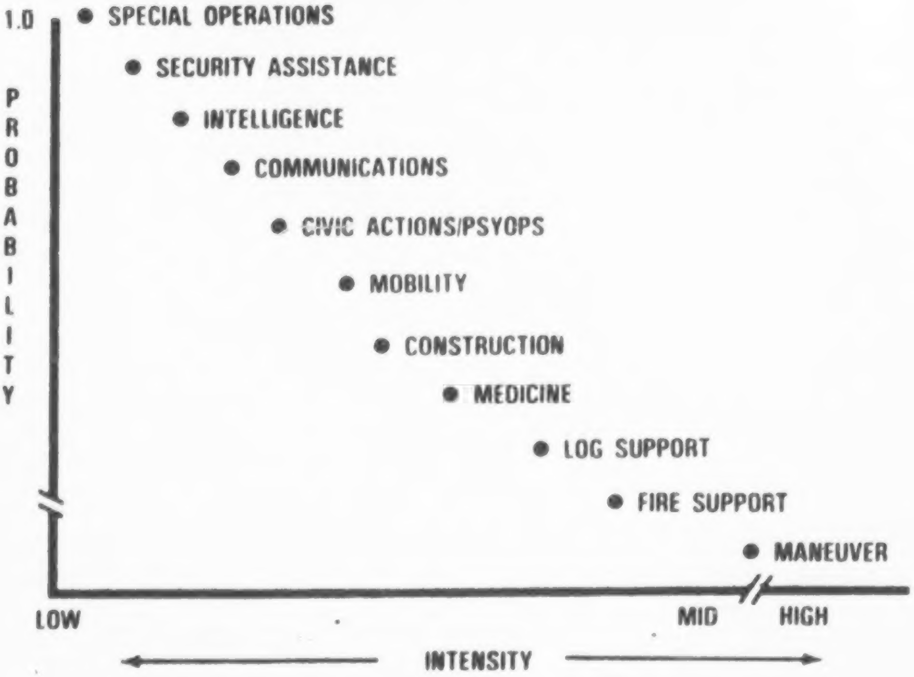
General GORMAN. Sure. You could have a terrorist instance involving a nuclear weapon which would put it all the way up here. And maybe the way to depict it is to look at these things as extending all the way across. You could have guerrilla war as part of a strategic war, obviously.

Now, if you turn that spectrum around and look at it from the point of view of a U.S. planner, I argue that we have to introduce the notion of probability. And I suggest to you that probability is unity, one point zero, that there will be some form of low intensity conflict. It is going on today. And that as one proceeds into the forms, the higher forms, they become less and less probable.

So to take your construct, sir, I would regard it very likely that we will have some act of terrorism today involving some American diplomat, or public servant or businessman in Latin America, involving guns and grenades, but probably not nuclear weapons. The high probability events are what I have termed "low intensity" conflict.

SECURITY ASSISTANCE

Now, I think I can take this end of the spectrum of war and talk about the readiness of U.S. forces to engage or to meet threats to U.S. security. And in order to do that, I break out force functions, as I show on this next chart.



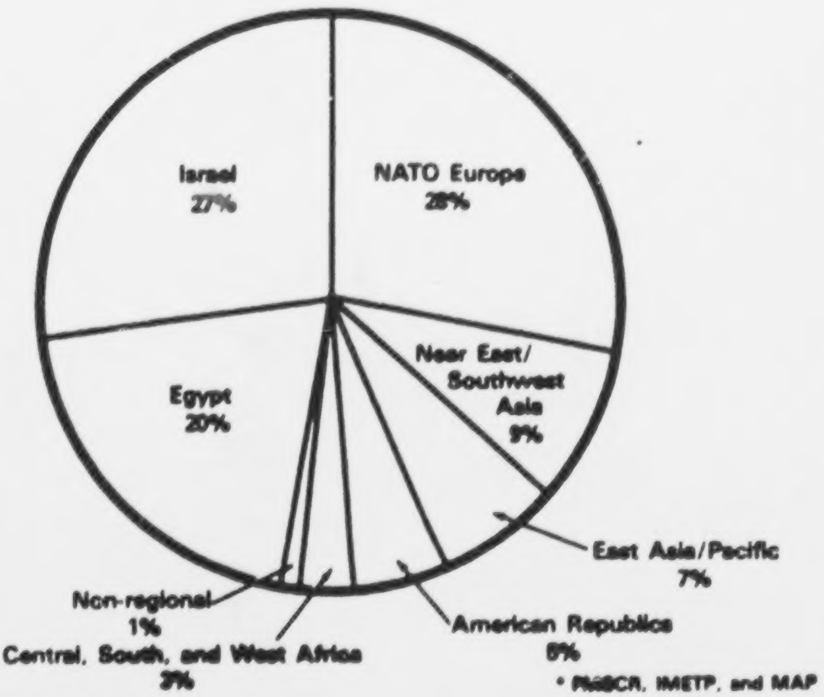
FORCE FUNCTIONS

All this suggests to you is that if you look at possible contingencies in U.S. Southern Command, the kinds of forces that are most likely to be engaged are Special Operations Forces; and I will talk about that in a minute. The next form of activity we are likely to be engaged in is security assistance. The next is intelligence activity, and so on down through here.

Note in particular that I do not regard the commitment of U.S. forces for the purposes of providing fire support or engaging in maneuver a very probable activity, and therefore, I do not spend a great deal of time concerning myself with the readiness of forces for those purposes, unlike my colleague sitting to my left or any of the other gentlemen who will appear before you. My concern is with these forms of force function, and I worry, therefore, about the readiness of our intelligence apparatus, our communications, our civic action, civil affairs, PSYOP's, et cetera, more than I do down here. In fact, I have very, very few assigned forces that are equipped to provide fire support and maneuver. Those are the sorts of forces that I would draw upon Atlantic Command or the U.S. Readiness Command to provide should I need them.

SPECIAL OPERATIONS FORCES

Concerning Special Operations Forces, sir, in the period that I have been in command, I have seen great progress in the readiness of those forces to support my command. And while the threat has become far more sophisticated, largely because of these drug dollars to which I made earlier reference, I think I can say that we have kept apace; indeed, I hope we have stolen a march or two on the opposition. We are certainly far more ready to employ the Special Operations Forces in my command than we were 2 years ago.



Security Assistance Budget*

FY 1986 Administration Proposed Strategic Apportionment

* FMSCR, IMETP, and MAP

Concerning security assistance, I have small detachments throughout Latin America for the purpose of providing assistance to the nations of that region. Security assistance, in my view, is badly underfunded in my area. If you will take a look at the fiscal year 1986 budget apportionment, you will see that strategically the American republics have been allocated 5 percent of the President's security assistance budget, substantially less than the other areas of Europe and the Middle East.

Now, sir——

Chairman GOLDWATER. Now, is that internationally we are looking at?

General GORMAN. This includes foreign military sales credit, the International Military Education and Training Program, and the military assistance grant aid or the military assistance programs, and it includes the entire security assistance budget in the 1986 Presidential budget——

Chairman GOLDWATER. And where do you fit in there?

General **Gorman**. The yellow down here, 5 percent. And you have to ask yourself whether this is 5 percent of our security problem.

I would make the point that security assistance in my region has a great deal more leverage dollar for dollar. You can get a great deal more done. For example, I believe that very modest increases in security assistance to the Andean republics could be used to lever their armed forces into greater activity against the narcotraffickers.

And it is interesting that in many of those countries the military, or properly, the Ministry of Defense has a responsibility for activities against the narcotraffickers. In Colombia, for example, by national decree, the MOD is charged with the primary mission of carrying the attack against the narcotraffickers. So a modest amount of security assistance to help them out would, in my view, go a long way toward making them more efficient in cutting that stuff off at the source.

Senator **Kennedy**. Mr. Chairman, if I could, ask a question concerning that previous chart. General, let me say it is a pleasure to see you again. I was interested in what criteria you used to put Special Operations in terms of probability the highest above security assistance, for example, when you know that security assistance——

General **Gorman**. I refer to the protection of diplomats, businessmen, barrier hostage situations for Special Operations Forces.

Senator **Kennedy**. I would certainly agree perhaps in terms of the importance of ensuring that those personnel are going to be protected. But is the line on the left the probability of utilizing those Special Forces?

General **Gorman**. Yes, sir.

Senator **Kennedy**. And that is on the basis of what? Your past year?

General **Gorman**. The past 2 years, sir. My Special Operations people are engaged daily in such tasks. I do not want to discuss in open session what they are doing exactly, but I would be glad to do it in closed session.

Now, I made the point about security assistance and its importance. What is it that we would do, for example, in the Andean republics, with more security assistance funding? Well, I would go after this function, intelligence.

One of the primary lacks of the defense apparatuses in the Andean republics for dealing with the narcotrafficantes is simply their inability to come to grips with where they are, who they are, how they operate, and how to operate against them. It is an intelligence problem, and we can help them substantially with it. And in my conversations with the Ministers of Defense down there, I am impressed with the fact that they always come around to a request for help from us with intelligence. They understand that we know how to do that far better than they, and they are intensely interested in securing our assistance.

In any event, U.S. intelligence in my command is an instrument of policy. It is a major asset for the United States in providing for our security interest.

Chairman **Goldwater**. Could I ask you just one quick question? Do you not rely upon your own sources of intelligence rather than normal sources like the CIA and the other intelligence family?

General **Gorman**. Senator, I have, I believe, effected in the past 2 years a very close working relationship with the entire intelligence community. That includes the chiefs of station in my area. I meet with them and talk with them constantly. It includes the heads of the various intelligence agencies. I will go from this meeting, for example, to Fort Meade for a session with the National Security Agency, which will go all afternoon, talking about the future of their operations in our area.

I could not do my job without that kind of support. My own assets, as I indicated at the outset, are very limited, but over the past 2 years there has been a substantial increase in intelligence means provided to me for my purposes. And the answer to your question is yes, qualifying the fact with the statement that I just made to the effect that I could not do my job without strong support from those other agencies.

I think, as you know from your experience with the Intelligence Committee, that intelligence is an activity that prospers when all of the various disciplines work together. And I would like to tell you that in the past 2 years we have made very substantial progress in getting that kind of integrated effort in Latin America.

You cannot have intelligence without communications. Communications in Latin America 2 years ago were relatively primitive. Literally, to make a call from one embassy to another via secure voice you had to come up to a switchboard in Washington and go on back down with all of the attendant decibel loss. That has been remedied to some extent. Not to my satisfaction yet, but we are getting there. And certainly military communications have substantially been improved.

Concerning this business of civic action and psychological operations, I would point out that most of the resources for these purposes are in the reserve components. And as I have sought to increase our capabilities in this respect, I have had to reach broadly into the reserves in order to find the folks that had the professionalism to handle those kinds of assignments. Again, we have made a great deal of use of them, and our readiness to perform such missions has increased proportionately.

MOBILITY

By that I am referring not only to helicopters—helicopters, of course, are the first thing that most ambassadors think of when they want to talk about dealing with a situation involving low intensity conflict, whatever it may be—but mobility is also fixed wing aircraft. We have done a great deal of work in the Command impressing upon everybody the advantages of plain old-fashioned intratheater airlift. For example, you would be interested to know that we have made great use of the old C-7 Caribou.

To give you a vivid example of why, there are 30 airfields in Central America that can support the Air Force standard intratheater transport, the C-130. There are over 900 where you can land the C-7 Caribou.

Now, the C-7 Caribous have long since been pushed out of the active force. The only place you can find them flying today are in the Guard and Reserves. I have gone to the Chief of the National Guard Bureau, and we have in the 1986 budget a proposal to put a detachment of C-7's down in SOUTHCOM and keep them manned with rotating reserve crews so that I can take advantage of all of those grass strips that are all over the place. These are the C-7's, the old Caribou, the old Army airplanes. They are very, very useful in Central America. I have got two of them down in Panama right now.

CONSTRUCTION

Virtually every place one goes in these countries there is a need for developing the roads, the other forms of community infrastructure. I mentioned Ecuador a moment ago. There was a strike last year in Ecuador in the oil fields, the principal complaints of the workers being the absence of roads and potable water. Just being able to move into the region with military engineers capable of developing potable water supplies or, properly put, instructing the locals on how to handle water supplies so as to avoid the diseases that are rampant in the region, is a major advantage. It makes us welcome in these areas, and it gives us access to the parts of the country usually where the security problem is located for other purposes.

MEDICINE

Medicine is another such capability of the United States that all of these countries want and need. Many of them have endemic diseases which in other parts of the world have long since been brought under control, and with our expertise they can make major progress. They simply do not have capabilities in their own apparatuses for coping with the problem, particularly in remote areas where these low intensity security problems tend to be most acute.

LOGISTICS SUPPORT

Most countries that are threatened by low intensity conflict have primitive ideas of how to put together a logistics system. In many of these countries, the idea of a field ration is a relatively new notion. They have for years operated by handing the commander a bag of gold and turning him loose to buy his food, meaning that the soldiers plunder from the peasants and the commander plunders from the bag of gold. We have made modest advances in bringing better ideas to bear in selected countries.

And then finally, of course, as I say, fire support and maneuver. And those I regard as the least likely forms of deployment. My interest has been in developing readiness in these other forms of activities, and I think that we have enjoyed, as I say, some modest success.

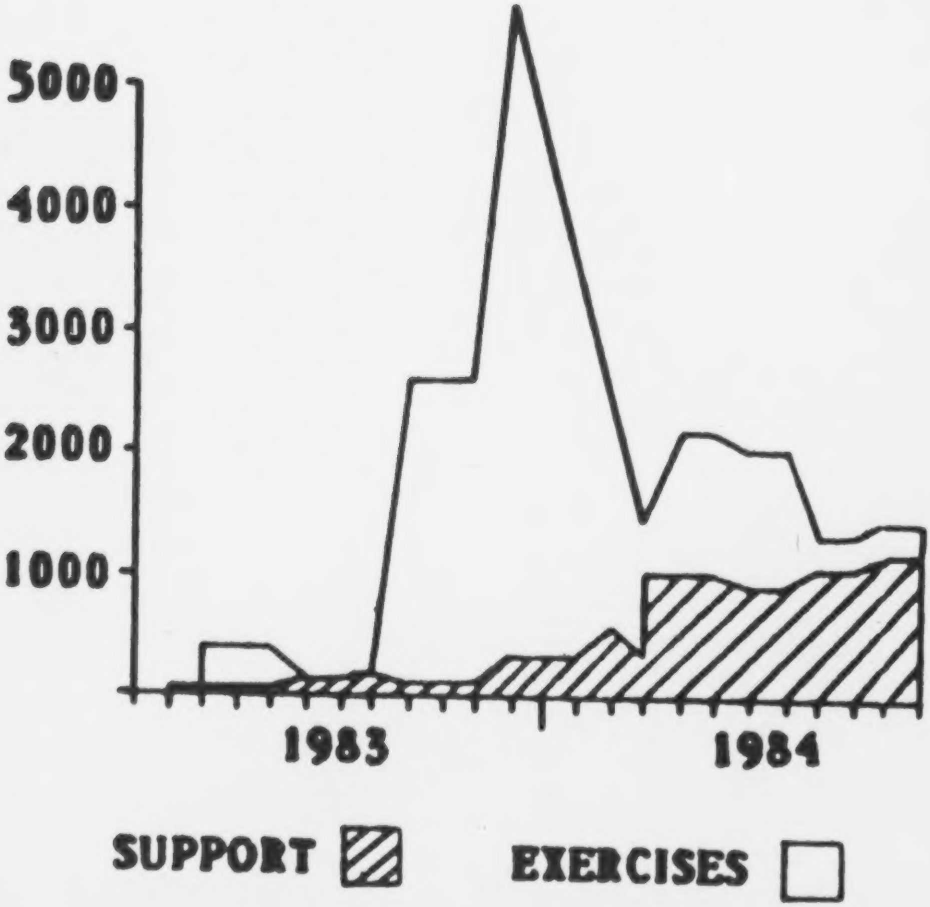
U.S. FORCES IN LATIN AMERICA

Sir, deployments of U.S. forces to Latin America, which have increased, as I earlier remarked, over the past couple of years, have been designed to support the broad purposes of U.S. policy to which I made earlier reference, and to increase the readiness of U.S. forces along the lines that I have just described.

The country of Honduras has hosted a number of joint, combined exercises—that is to say, training events involving all U.S. services and all of host-country services, and involving the armed services of the two countries operating afield together. These exercises have been invaluable, both for training U.S. forces for low intensity conflict under very real-world conditions, and for increasing the interoperability between the United States and the Honduran forces, and thereby supporting President Reagan's policy objectives.

I think that the activities of the United States in Honduras have been reassuring to the entire region. I have talked with all of the heads of state in the region within the past three weeks. Every one of them has urged not only that we keep up those activities, but that we increase them. And if we are going to be criticized in future generations, it will not be because we sent too many Americans to Honduras or elsewhere in Central America. It will be because we sent too few, too late.

I guess I should except from that statement on the heads of state Daniel Ortega. I have not had a chat with him lately. [Laughter.]



US FORCES IN HONDURAS

General Gorman. Let me show you a graphic summary of U.S. forces in Honduras last year. There has been a lot of myth about all of this. As you can see, I divide the forces into two groupings. There is a group shown in the plain area under the curve that come down there for exercises. These are usually short duration. The participants come in and they go out. And we have on one occasion during an amphibious exercise back in mid-1984 peaked just above 5,000 troops, but by and large the numbers are as shown.

The shaded area here are troops that are in there to provide communications, logistics support and other continuing support functions, provide an infrastructure for me in my theater mission and for these comers and goers from Forces Command and Atlantic Command.

The picture for 1985 is similar. I will not show it to you in hearing, but I have the data here, and we would be glad to show it to you later.

I believe that these activities in Honduras over the past 2 years illustrate well the purpose and the nature of our response to low intensity conflict in Central America. In those 2 years Honduras has endured literally scores of border incidents and two outright invasions from Nicaragua by armed insurgent bands trained in Cuba. They have endured as well threats and acts of aggression from Salvadoran guerrillas.

I am confident that our simply being there with U.S. troops has deterred more flagrant acts of oppression. And during these last 2 years the Honduran armed forces with our help have restructured themselves to create rapid response forces with enhanced fire power. They provide the fire support and the maneuver to meet the threat in Honduras. Although they have been unwilling, indeed unable to match Nicaragua's massive buildup of armor and ground forces, the Hondurans have sought to upgrade their force's quality through intensive training and better equipment. The Hondurans have also invested wisely in intelligence, civic action and PSYOP capabilities that involve their civilian agencies in their efforts to support democracy, development and defense.

You see, sir, here is a case where security forces have indeed acted as a shield for democratization and development. With the U.S. activities in their country as a backdrop, the government of Honduras has solidified the position of its first elected civilian constitutional government in nearly 20 years, and the government of President Roberto Suazo Cordoba has maintained a good record of respect for human rights. They have punished the exceptional case of official abuse. There has been no evidence of systematic officially condoned or instigated violations of human rights, and now U.S. economic assistance is providing hope for an economic revival as well.

Mr. Chairman, USSOUTHCOM stands ready to help all those in Latin America who share President Reagan's goals. We ask only your understanding and your support.

Thank you.

[The prepared statement of General Gorman follows:]

Prepared Statement of
General Paul F. Gorman, USA
Commander in Chief, US Southern Command
to the Senate Armed Services Committee
27 February 1985

Mr. Chairman and members of the Committee, this is my last appearance before Congress as the Commander in Chief, US Southern Command. My successor, General John Galvin, is here to observe today. General Galvin will take command on Saturday, 2 March.

In this year, 1985, I will complete 40 years in uniform as a member of the active component of your Armed Forces. In accordance with the long-established policy of the US Army, I will leave active duty in April, since this year I will reach both age 58, and my 35th year of commissioned service.

REGIONAL OVERVIEW

I have served as USCINCSO for almost two years now, during a period of change in Latin America, and change in the United States with regard to our understanding of, and our attitudes toward, that region. You will recall that two years ago, in April 1983, President Reagan outlined four basic objectives of US policy in Latin America. These remain our goals:

* Support for democracy, reform and human rights.
* Support for economic development.
* Support for dialogue and negotiations.
* Support for security as a shield for democratization, development, and diplomacy.

Progress has been made over the past two years in achieving those objectives. In 1979, two-thirds of the people in Latin America lived under military or military-dominated governments. Today, over 90 percent of those people are living in countries with democratic governments. Since 1980, military juntas have turned back control of governments to civilians in eight countries. Since 1980, fifteen countries in mainland Latin America have held free elections. Over the past two years, from my headquarters in Quarry Heights, Panama, I have watched democracy in action via elections in Argentina, Uruguay, Brazil, Venezuela, Peru, Ecuador, Colombia, Panama, El Salvador, Guatemala and Belize. Today electoral campaigns are underway in Peru, Costa Rica, Honduras, El Salvador, and Guatemala. All these instances of democracy in action contrasted sharply with the parody of that enacted in Nicaragua this past fall, culminatng in Fidel Castro's upstaging Daniel Ortega at the latter's inauguration last month.

Authoritarian or totalitarian governments now hold sway only in Chile, Paraguay, Suriname, Guyana, and Nicaragua. The latter case is the one closest to home. Notwithstanding Sandinista pledges to the OAS and others in 1979, democracy in Nicaragua has never been given a chance. The Sandinista Comandantes day by day tighten their grip on the population, bending to their will the political opposition, the entrepreneurial class, the ethnic minorities, the media, the Church, the educational system, and the local public administrations. The personalistic and arbitrary rule of the Somoza family has been replaced by a Marxist-Leninist garrison state modeled deliberately after Castro's Cuba. The Nicaraguan people revolted against a caudillo who stole their money, only to discover that now they are ruled by a cabal of venal men who have stolen not only their wealth, but also their dreams of freedom. It is no wonder, therefore, that more and more Nicaraguans have rallied to one or another of the rebel groups which constitute, as President Reagan has called them, the Freedom Fighters of Nicaragua.

The other great drama of democracy in Central America is being staged in El Salvador. Despite seemingly insuperable adversity, the Salvadorans have brought into being a freely elected constitutional government, reformed their military and legal systems, rectified significantly mal-distribution of land, and built new respect for justice and human rights. In my judgment, President Duarte has broken out of stalemate in the war, and is now facing a dynamic situation in which, for the first time since 1979, democracy, prosperity, and security seem attainable. Of course, Nicaragua continues to intervene in El Salvador, and the Salvadoran guerrillas supported by the Sandinistas remain a formidable fighting force. Moreover, those guerrillas in their frustration are turning more and more to urban terrorist acts, kidnappngs, and rural minings and roadblocks which have had the effect of increasing civilian casualties. Whereas last year at this time I was conditionally pessimistic, today I am guardedly optimistic that Salvadoran democracy will triumph.

I want to comment on the implications of events in Central America for US security, but first a word on economic development and diplomacy.

The Central America Democracy, Peace and Development Act of 1984 -- the Jackson Plan -- and the Caribbean Basin Initiative have enabled the US government to facilitate the development of our nearest neighbors. After a period of economic decline, their economies are starting to turn around. Both the decline and the turn around have been principally driven by external factors. US policy has sought to accelerate recovery in the region precisely because our own prosperity will be impaired so long as economies there remain stagnated, or depressed under the burdens of political violence and rampant population growth. And more can be done. I have advocated encouraging those US industries critical to our own national security to move some of their off-shore operations to Latin America, closer to home. For example, I hold that the defense electronics industry can, and should, move some significant proportion of its off-shore operations to the Caribbean Basin. The security benefits to the United States of bringing our defense production base closer to home will be two-fold: direct security from shorter and more secure lines of communication for critical materiel, and indirect security from generating jobs in nearby countries potentially unstable, in part, because of unemployment.

Concerning diplomacy, I am one soldier who strongly approves of efforts to find a negotiated settlement to the conflicts in Latin America. In any way I have been able, I have supported the work of Ambassadors Stone and Shlaudeman, and I have encouraged our allies in their search for a workable formula in the Contadora process. I applaud our diplomats' insistence upon verifiable arrangements which provide equitably for all parties to the conflict, including the Nicaraguan Freedom Fighters. I am not unfamiliar with the difficulties our diplomats face, having spent two years in Paris engaged in negotiations with the North Vietnamese and the Viet Cong. I agree thoroughly with Ambassador Motley that the Nicaraguans do not come to the negotiating table because they admire it as a piece of furniture. There would be no dialogue, no negotiations with the Nicaraguans were it not for the Freedom Fighters, and were it not for the US military presence in Central America.

Somehow, the Sandinistas must be brought to a reckoning. When they came to power in 1979, their government included responsible men, moderate respectable leaders, who themselves believed that the Sandinistas would honor the commitments they made to the OAS for elections, genuine non-alignment, and respect for the sovereignty of their neighbors. These men included Arturo Cruz, Alfonso Robelo, Adolfo Calero, and Alfredo Cesar. The presence of men like these among the Sandinista leadership convinced the United States to become the principal foreign supporter of the new government. Through mid-1981, we poured in more than $117,000,000 in direct aid, making Nicaragua the highest per capita recipient of US economic assistance during this period.

In August, 1981, the United States undertook 5 months of diplomatic efforts to reverse the Sandinista course, telling the *Comandantes* that if they would cease their support for the Salvadoran guerrillas, we would both guarantee their security and cooperate with their economic development. Those negotiations came to naught. And by that time it was clear that the men we admired had been squeezed out of power, or had left in disgust, and that the remaining *Comandantes* were strongly committed both to Cubanization and to support of subversion in El Salvador, Honduras, and Costa Rica. Thereafter, we have taken steps to shore up these threatened neighbors, and to provide serious incentives for the Sandinistas to reconsider.

The men I named -- Cruz, Robelo, Calero, and Cesar -- became leaders of the Freedom Fighters. Today there are 10,000 to 15,000 armed followers openly resisting the Sandinistas. Tragically, the Sandinista *Comandantes* have plunged recklessly onward toward the goals dictated by their doctrine. Under constant Cuban tutelage, they have:

*Altered fundamentally the arms balance in the region, increasing their armed forces six-fold over a period of four years, fielding an armored brigade strike force of over 300 tanks and armored personnel carriers, 70 large artillery pieces, numerous multiple rocket launchers, anti-aircraft and anti-tank guns, and a profusion of motor transport. The recent addition of modern attack helicopters, the MI-24 HIND hunter-killer used by the Soviets against the Afghan Freedom Fighters, is of particular concern to all in the region. I have attached a detailed comparison of the military forces in Central America, a portrayal of growing, destabilizing imbalance.

*Trained pilots to fly high performance fighters, and allowed Cubans and other foreigners to install intercept radars and to build air bases in Nicaragua -- one of which, Punta Huete, will soon be capable of supporting both jet fighters and the heaviest transports in the Bloc inventory.

*Continued to support armed subversion against Costa Rica, Honduras and El Salvador, and have played host to numerous terrorist organizations from around the globe, providing an operating base for subversion throughout the Western Hemisphere.

*Imposed universal conscription and raised armed forces of over 119,000, keeping more than half on active duty. Recently the draft has been extended to men through age 30, and the *Comandantes* are talking about putting 100,000 men in the field to defeat 10,000 Freedom Fighters. The cynical cannon-fodder use of untrained Sandinista militia has already prompted violent protests among the citizenry in lowland towns, and prompted an unprecedented flood of Nicaraguan refugees into Honduras and Costa Rica.

*Ruined the Nicaraguan economy, becoming ever more dependent on Soviet dole, and trafficking in cocaine sales in the United States to generate hard currency.

And speaking of *narcotraffickers*, I should note that in Peru, Bolivia, and Colombia, the level and intensity of violence have increased. And we are now seeing there other alliances being formed between the *narcotraficantes*, with their hundreds of millions of dollars to spend, and the armed ideologues of Marxist-Leninism. The combined efforts of the *narcotraficantes* and the *insurgentes* are threatening to rend the very fabric of those democratic societies. Moreover, neighboring countries are being faced with similar, incipient problems as the *narcotraficantes* spill across international borders.

US FORCE STRUCTURE IN PANAMA

To meet developing threats to US interests, US armed forces in Panama are being restructured. When I came to Panama almost two years ago, I found an Army Component very well designed to defend the Panama Canal against brawlers and rioters, but ill-suited for supporting allies in the region. Consequently, I recommended that the Army deactivate the mechanized infantry battalion it had positioned there some 30 years ago, and give up in excess of 1200 infantry and artillery spaces so that USSOUTHCOM could obtain additional intelligence, communications, aviation, medical and engineer capabilities. The entire restructuring, when completed, will total 334 fewer spaces than we started with in 1983.

Additionally, my Army Component was one of many subordinate to the Army's Forces Command, stationed in Atlanta. The Army has proposed to the Congress that it form an Army headquarters (US Army South) for the US Southern Command. As a major Army Command directly subordinate to the Department of the Army, US Army South will be better able to function as USSOUTHCOM's advocate and contender for Army resources, and to provide command, administrative and logistical support for deployed Army forces. US Army South will be formed from assets of the present headquarters of the 193rd Infantry Brigade (Panama), with no increase in personnel assigned to Panama.

I should also report that the US Navy has within the past year designated my Naval Component a 2d echelon command, whose commander reports directly to the Chief of Naval Operations, and that the Air Force has revised the prerogatives of my Air Component commander in the interest of giving USSOUTHCOM's budgetary and operational requests better visibility in the Pentagon.

Mr. Chairman, I strongly endorse these initiatives.

DEFENSE OF THE PANAMA CANAL

Throughout the life of the Panama Canal Treaty, primary responsibility for defense of the Canal rests with the United States with growing participation by the Republic of Panama. Further, the Neutrality Treaty jointly commits the United States and Panama to protect and defend the Canal and ensure its neutrality. After the expiration of the Panama Canal Treaty on 31 December 1999 and the scheduled termination of US military presence in Panama, the Neutrality Treaty will remain in effect permanently.

The sea lines of communication through the Caribbean constitute key linkages among the United States and its principal allies overseas, and between the western and eastern United States. An integral part of those SLOCs is, of course, the canal across central Panama, and the transisthmian pipeline in western Panama which permits ocean-to-ocean coupling of supertankers.

Some hold that the transisthmian tranport systems, being of benefit to all nations, will never be attacked. The Panama Canal has been declared a neutral international waterway, and there is no more reason to attack the oil pipeline than the canal. Hence, the argument goes, no military forces are required for defense of either. But this is wishful thinking, belied by the experience of the Egyptians with the Suez Canal in 1984, when international terrorists seriously threatened one of the major shipping arteries of the world and evoked a military response by the major powers.

From certain kinds of threats, the canal and the pipeline can be defended only with difficulty. The Panama Canal can not be defended by US forces alone against subversion or sabotage launched from land against sensitive installations along the canal. But it can and must be defended by combined Panamanian and US forces, as provided for in the Panama Canal Treaty. The responsibility for defense of the pipeline against similar threats rests with the Panamanian Defense Forces (PDF).

But there are other threats, such as terrorist mining of the sea lanes on the approaches to the canal or the pipeline. Egypt's experience this past year, when Suez Canal traffic was imperiled by mines strewn in the Red Sea as an act of international terror, illustrates the vulnerability of the commerce of all nations to such acts of random violence. And modern terrorists have access not only to ships and sophisticated mines, but also to aircraft and guided missiles as well.

The US contribution to the defense against today's threats consists of broad area surveillance, and capabilities for maritime and aerial countermeasures. These complement the capabilities of the Panamanian Defense Forces.

Defense is as urgent today as it has ever been. Therefore there is a continuing need for such combined US-PDF exercises as Kindle Liberty 85 and Blazing Trails, which have created a partnership comparable to that which has emerged for the operation of the canal. Only through such a security partnership can safe passage by commerce of all nations be guaranteed.

USE OF RESERVE COMPONENTS IN USSOUTHCOM

The US Southern Command is unique among the Unified Commands in our use of Reserve Component forces. Reserves play a very large role the entire year-round in carrying out our missions; in fact, we could not do the job without them.

The Air National Guard and the Air Force Reserve have been a vital part of our activities. Air National Guard A-7s and A-10s have been stationed in Panama. Our intra- and inter-theater airlift and extended Search and Research capabilities are provided by Guard and Reserve C-130s.

The Army National Guard and Reserve are playing an ever-increasing role in USSOUTHCOM. This month two major exercises took place in Panama, both of which would not have been possible without the Reserve Components. Exercise KINDLE LIBERTY 85 tested our defenses of the Panama Canal, and some 400 reservists, about 10 percent of the total, participated. On the Navy side, reserve Mobile Inshore Undersea Warfare and harbor defense units took part. This year, for the first time, KINDLE LIBERTY was sited outside of the canal operating area -- in the remote Azuero Peninsula. This is important because defense of the canal can not be conducted from its banks, and must extend outward to the distant regions of Central America.

The Azuero Peninsula is also the locale for BLAZING TRAILS, a field exercise for some 1600 Army National Guardsmen, chiefly engineers and medics, sent to Panama for their annual active duty training of two weeks or so. BLAZING TRAILS is still underway, and by the time it concludes in May, we will have provided training for some 10,000 Guardsmen from Alabama, Kentucky, Louisiana, Missouri, New Jersey, North Carolina, Texas, Wisconsin, and Puerto Rico. A deployed headquarters from the Guard provides continuity and command and control. Their mission is to transform a cattle track into an all-weather road-- a very likely real-world pioneering mission should they be mobilized -- and their commanders and soldiers are enthused about the excellent training they are getting.

We are also preparing for a Texas National Guard armor exercise in Honduras. This deployment in March will provide excellent training for both the US participants and Honduran anti-armor forces.

USSOUTHCOM plans to increase the role of Reservists in the region. For example, in USSOUTHCOM the workhorse transport of the US Air Force, the C-130, is too large and heavy to land on most of the existing small dirt airstrips. The old C-7 aircraft, the CARIBOU, is capable of operating from these strips. These aircraft, however, have all been transferred to the National Guard, and we are now working with the Chief of the Guard Bureau to provide that needed capability to the Command.

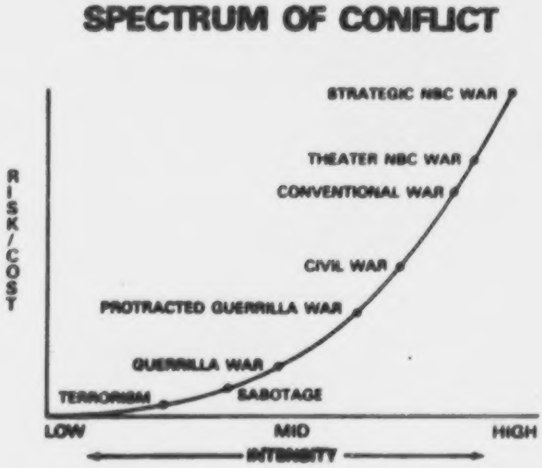
READINESS IN USSOUTHCOM

Mr. Chairman, this Committee is properly concerned with the readiness of US forces to meet threats to national security. In Latin America these threats are somewhat different than they are elsewhere, and therefore force requirements are different. To comment on the readiness of our forces, therefore, I believe it would be useful to draw your attention first to that for which we must be ready.

As recognized by the National Bipartisan Commission on Central America, the conditions of life in Latin America, often miserable, are being "exploited by hostile outside forces -- specifically, by Cuba, backed by the Soviet Union and now operating from Nicaragua -- which will turn any revolution they capture into a totalitarian state, threatening the region and robbing the people of their hopes for liberty."

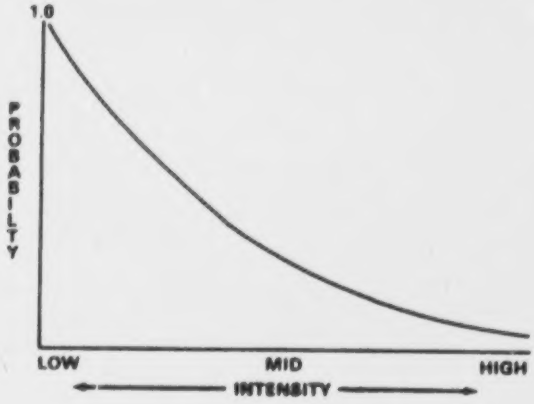
But the central military problem posed for my command has more general, worldwide dimensions. In my discussions with my staff and in my lectures before the War Colleges, I stress readiness for what I term "low intensity conflict". By "conflict" I mean the use of violence for political purposes. "Intensity" refers to the means of violence, and to the nature and extent of consequent casualties and destruction. From the perspective of the United States, "high intensity conflict" describes the relatively unconstrained use of available military forces and weapons, including nuclear, chemical, biological, or other weapons capable of affecting large numbers of people or extensive territory. "Mid intensity conflict" implies limitations on the use of the latter weapons, but employment of conventional military forces and weapons in a given region for specified purposes, in which destruction may be extensive and casualties heavy among participants. "Low intensity conflict", in contrast, refers to situations in which the perpetrators of violence resort to coercive crime, sabotage, subversion, terrorism or guerrilla warfare, for which the United States limits its military response to direct action by its Special Operations Forces, to advising or supporting a threatened ally, or to positioning US forces to deter escalation of the conflict by third nations. Note that from the perspective of the assisted ally, that conflict, for example a counterinsurgency campaign, may require the commitment of all its available military resources and involve extensive destruction and casualties---from its point of view, mid or high intensity conflict. Nonetheless, I hold that the terminology is useful for those of us charged with planning and programming the readiness of U.S. forces because (1) "low intensity conflict" is the form of political violence most likely for USSOUTHCOM; (2) DoD expenditures tend to be directed toward preparation for less probable, albeit more dangerous, higher intensity conflict; and (3) "low intensity conflict" often requires distinctive materiel or forces structured and trained differently from those for higher intensity conflict.

I have suggested that it is useful to look graphically at the spectrum of possible wars, comparing their relative risks or costs with intensity.


SPECTRUM OF CONFLICT

For a Soviet or Cuban strategist, this depiction should convey the message that if political objectives can be achieved by recourse to low intensity conflict, that is the lower risk, lower cost course of action. Judging from their behavior, such clearly appears to be their preference. For the US strategist I have suggested that it is more useful to plot the probability of conflict versus its intensity.

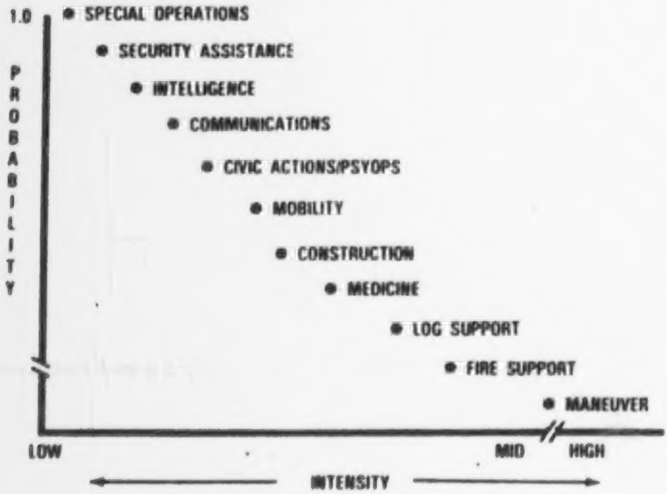
PROBABILITY vs INTENSITY



The problem with which the US national security community must deal is that we have traditionally structured our forces to counter the mid to high intensity conflict, assuming that forces so structured also have utility against the low end of the spectrum. In my judgment, however, this assumption is often incorrect, and can lead to strategic vulnerability.

To illustrate this last point, I have listed here military force functions in low intensity conflict, arranged roughly in the order these might be called into play as the intensity of conflict increases. Plotted on the Probability-Intensity paradigm, they look like this:

FORCE FUNCTIONS



Each of these force functions has a definite role to play in low intensity conflict operations; together they are the military tools of national policy.

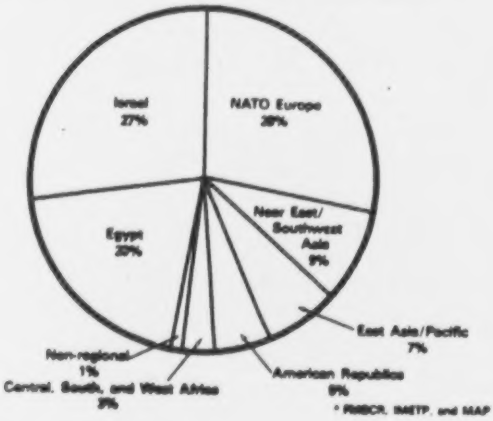
Special Operations Forces

In my tenure of command, I have witnessed significant progress by US Special Operations Forces, but I do not wish to comment further in open session on their readiness.

Security Assistance

In most situations involving low intensity conflict, the US response will include Security Assistance. By strengthening our allies and friends, security assistance programs serve as an economy-of-force measure which allows the United States to economize on deployed military forces, and to avoid direct involvement in hostilities. The program, however, should be modernized to meet the threat to the Third World. Current cost formulae exaggerate the real value of assistance provided and force our allies to seek non-US alternatives which often make them prey for arms vultures who act only from self-interest. Security assistance programs must be viewed as temporary to meet the crisis at hand. The permanent transfer of equipment, which leaves the recipient with large quantities to maintain following the conflict, serves neither our allies nor the United States. Lend-lease would be a desirable alternative.

The apportionment of Security Assistance funds to the American Republics has, in the past several years, amounted to about three percent of the world-wide total. The FY 86 budget now before Congress seeks to raise this to five percent, and five percent seems to me to be barely sufficient for our closest neighbors.



Security Assistance Budget*
FY 1986 Administration Proposed Strategic Apportionment

* FMSCR, IMETP, and MAP

Three aspects of security assistance programs within USSOUTHCOM deserve separate mention: the Regional Military Training Center in Honduras; the US Army School of the Americas, at Fort Benning, Georgia; and our support from US Army Special Forces.

The Regional Military Training Center (RMTC) at Trujillo, Honduras continues to play an important part in our Central American Security Assistance plans. Over 5000 Honduran and 5000 Salvadoran troops have trained there since mid-1983. As you know, training of Salvadoran forces has been curtailed there since October 1984 by Honduran. The Ramirez claim is also a complicating factor. The Administration has been working closely with the Hondurans on these issues. I am pleased to report that, as I speak, forty-five officers of the Costa Rican *Guardia Civil* are in the second of nine weeks of training at the RMTC, alongside Hondurans and North Americans. I remain convinced that it is in the interest of all the democracies of the region to keep the RMTC functioning.

The US Army School of the Americas (USARSA) has made a successful move from Panama to Ft Benning, Georgia. Its first course at the new home is the USARSA Command and General Staff Course with thirty-seven officers in attendence from nine countries. In addition, sixty-one soldiers from the Dominican Republic have started the Cadet Course. A solid faculty of Latin American instructors is being assembled, and I expect that Latin interest in and support for USARSA will soon be even greater than when the school was in Panama.

Security assistance in USSOUTHCOM is heavily dependent on US Army Special Forces, whose language skills and cultural orientation, in addition to their military professionalism, place them in high demand as trainers. Other types of US forces are also called into play, however, roughly in the order listed.

Intelligence

We must have accurate intelligence for low intensity conflict if we are to gauge where to allocate our Security Assistance, and to support other US actions. Intelligence is access and influence for US Ambassadors and military officers. Knowledge is literally power. In addition to permitting sound US management, intelligence can be used as a strategic or tactical support for an ally. Our superior collection means will often be the sole recourse of a foreign government seeking to acquire an advantage in sentience over an adversary, especially if the latter employs the clandestine methods taught by the Soviets or Cubans.

But the best US intelligence units are manned and equipped to collect against Soviet targets, and are often incapable -- especially limited by linguists -- in dealing with cultural peculiarities of Third World targets. Designed to operate as part of a larger force in mid intensity wars, these units are often awkwardly robust and expensive to support, politically as well as logistically. Moreover, intelligence units with missions in the Third World are often issued older, less capable, more manpower-intensive equipment which creates problems for host countries and US commanders who wish to minimize their visibility and maximize the security of the intelligence collectors. Little DoD research and development funding has been directed at this problem, with the result that military intelligence, which could be a decisive response to low intensity conflict, remains only marginally efficient. Some recent research efforts at the electronic remoting of intelligence, however, show great promise.

Communications

Communications are *sine qua non* for collecting and disseminating intelligence, and otherwise dealing with low intensity conflicts. For democratic governments under attack, access to modern communications technology can be a force multiplier. For the United States, it is essential if the plethora of US Government agencies in the several regional Country Teams are to be advantaged by intelligence, and to act in concert with Washington and each other. The drawback is that our better military communications equipment is often reserved for "major contingencies", and readiness for these is cited in denying requests to support low intensity conflict.

Civic Action And PSYOPS

Civil Affairs and Psychological Operations units have all but disappeared from the active forces. The Army, which possesses most of these, now has 98 percent of its Civil Affairs, and 61 percent of its Psyops personnel in the reserve components. Active or reserve, these are conceptually and technologically obsolescent, bypassed by the age of television. Nonetheless, the skills called for in such units are useful in prosecuting low intensity conflict.

Mobility

Whenever a foreign government faces an insurgent threat, it faces the choice of extensive mobilization, or enhancing the tactical mobility of its forces. One of the first items for which it is likely to ask us is helicopters, and helicopters are likely to be among the first items a US Ambassador is likely to offer. But as Security Assistance, US military helicopters are expensive. US military trucks are no bargain, either. Fixed wing intra-theater airlift might provide an equally important boost to mobility, but here the Security Assistance options are even fewer and more expensive -- the Services have no contemporary transport smaller than the C-130 HERCULES, which for many countries requires too much runway, and is too big, too expensive, and too complicated to fly and maintain. Similarly, we seem to have forgotten that in most Third World countries, the population clusters along coasts and rivers, where a "brown water" capability built around small boats and landing craft would be useful. Again, the "brown water" capability of the US Navy is at minimal strength, and is outdated.

Construction

There is a clear recognition in the Third World of the value of military engineer units, with the equipment and discipline to undertake construction tasks in remote areas where security may be questionable, or in a natural disaster zone, where operations by commercial contractors are unlikely. And in any less-developed country, military engineers can dig wells, build water distribution and flood control systems, and construct the roads and bridges essential to economic progress. There is a concomitant demand for US expertise in organizing and training such units. As for force structure, 68 percent of US Army engineers are in the reserve components.

Medicine

There is a comparable demand for US military medics. Like our military intelligence, communications, and engineering, our military medicine is respected, even venerated, for its sophistication. Any Third World country which has a bloody war thrust upon it is likely to find that its medical establishment is unequal to the challenges of providing stabilizing treatment to soldiers and civilians caught in the violence when they are wounded, and of evacuating them to hospitals fast enough to save their lives. Most countries have never considered seriously the concept of a medical service corps trained and equipped for the field. Here US ideas and techniques can exert powerful leverage on manpower. It is expensive to recruit, train, and season a soldier and his needless loss due to a failure to treat his wounds is an expensive stupidity and a moral violation of the soldier-state compact. But again, 55 percent of US Army medics are in the reserves.

Logistic Support

If Third World notions of military medicine are outdated, their approaches to logistic support are ante-deluvian. Shortsightedness, limited managerial skills, corruption, and simple lack of organizational know-how often produce such dysfunctional practices as troops foraging on the peasantry, or commanding officers being issued operating cash based on unverified muster rolls. Standard field rations, bandages, batteries, boots, uniforms, load-bearing equipment, and rain gear, which often could be manufactured within a given country from indigenously produced materials, usually do not exist or can not be purchased locally with US Security Assistance funds. There are, therefore, few alternatives to buying expensive US products, or continuing with traditional makeshift means. Here again, relatively simple production and quality-assurance technology, or such inexpensive upgrades as mini-computers for materiel or personnel management, usually await a US assist. Using Security Assistance for locally produced items would also create jobs in troubled economies.

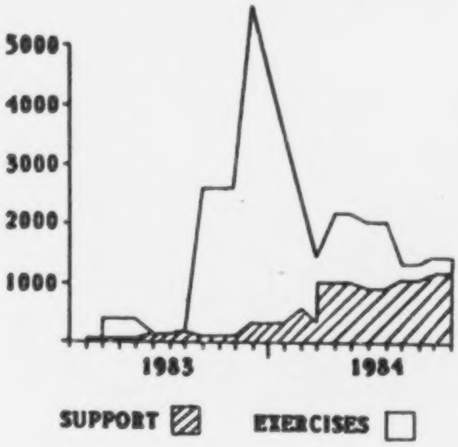
Fire Support And Maneuver

US combat power is correctly the last of the force functions to be applied in a low intensity conflict which threatens a Third World ally. Other measures, if used in a timely and judicious manner, should preclude the introduction of US shooters. As with the other force functions, however, US combat forces are often poorly designed for low intensity conflicts. We need more light land and air forces, more "brown water" naval forces -- all more strategically mobile, and better fitted to support other nations in defending themselves.

US REGIONAL DEPLOYMENTS

Deployments of US forces to Latin America have been designed to enhance readiness for low intensity conflict. I have previously described the recent and ongoing exercises in Panama. The other major deployments have involved naval forces in waters adjacent to Central America, and US Army, Air Force, and Marine Corps units in Honduras. Honduras has hosted a number of joint, combined military exercises over the past two years. These exercises have been invaluable for training US forces for low intensity conflict under real world conditions, increasing the interoperability between US and Honduran forces, and supporting President Reagan's policy objectives. Our activities have been reassuring to the entire region, but especially to the Hondurans -- if in years to come Hondurans criticize the United States for what it has been doing in Central America, it will not be for our having done too much, but rather for our having done too little. The following graph depicts the US military activity in Honduras over the past several years; the projections for 1985 do not envision major increases.

US FORCES IN HONDURAS



Let me close by remarking that the US activities in Honduras over the past two years illustrate well the purpose and nature of our response to the low intensity conflict in Central America. In those two years, Honduras has endured literally scores of border incidents and two invasions from Nicaragua by armed insurgent bands trained in Cuba, as well as threats and acts of aggression from Salvadoran guerrillas. I am confident than the training exercises of US troops has deterred more flagrant acts of aggression. During that time, the Honduran Armed Forces, with our help, have restructured to create rapid response forces with enhanced fire power. Although unwilling, indeed unable, to match Nicaragua's massive build up of armor and ground forces, the Hondurans have sought to upgrade their forces' quality through intensive training, and better equipment. Major US equipment acquisitions include UH-1H helicopters, A-37 aircraft, artillery, and increased field sustainment items. The Hondurans have also wisely invested in intelligence, civic action and PSYOPS capabilities, and involved their civilian agencies in the efforts of their security forces to support democracy, development and defense.

Here is a case in which security forces have indeed acted as a shield for democratization and development. With US exercises as a backdrop, the Government of Honduras has solidified the position of its first elected civilian constitutional government in nearly twenty years, and proceeded with land reform. Moreover, the government of President Suazo has maintained a good record of respect for human rights, punishing the exceptional case of offical abuse; there has been no evidence of systematic, officially-condoned or instigated violations of human rights. And now US economic assistance provides hope for an economic revival as well.

Mr. Chairman, USSOUTHCOM stands ready to help all those in Latin America who share President Reagan's goals. We ask your understanding and support.

CENTAM MILITARY BALANCE-UNCLAS

UPDATED	NU	NU	NU	NU	NU	HO	HO	HO	HO	HO
22FEB85	TOTAL	TOTAL	% GROWTH	% CENTAM	% CENTAM	TOTAL	TOTAL	% GROWTH	% CENTAM	% CENTAM
	1979	1985	Since 79	1979	1985	1979	1985	Since 79	1979	1985
Pers	12000	113800	848	15	50	15000	15200	1	19	7
Tanks	4	135	3275	36	93	0	0		0	0
Arm Veh	35	170	386	30	48	12	90	650	10	26
Arty	4	72	1700	5	25	8	12	50	11	4
ADA	8	160	1900	10	8	32	32	0	41	14
Aircraft	32	55	72	12	13	90	110	22	32	26
Navy>65'	5	8	60	18	22	6	10	67	21	27
Pop (K)	2365	3200				3600	4300			
Mil/Kpop	5	36				4	4			

CENTAM MILITARY BALANCE-UNCLAS

UPDATED	CS	CS	CS	CS	CS	ES	ES	ES	ES	ES
22FEB85	TOTAL	TOTAL	% GROWTH	% CENTAM	% CENTAM	TOTAL	TOTAL	% GROWTH	% CENTAM	% CENTAM
	1979	1985	Since 79	1979	1985	1979	1985	Since 79	1979	1985
Pers	5000	8000	60	6	4	16500	38000	130	21	17
Tanks	0	0		0	0	0	0		0	0
Arm Veh	0	1		0	0	12	35	192	10	10
Arty	0	6		0	2	24	60	150	32	21
ADA	0	0		0	0	38	20	-47	49	9
Aircraft	8	15	88	3	4	49	95	94	18	23
Navy>65'	0	5		0	14	5	4	-20	18	11
Pop (K)	2166	2300				4673	5200			
Mil/Kpop	2	3				4	7			

CENTAM MILITARY BALANCE-UNCLAS

UPDATED	GT	GT	GT	GT	GT	PN	PN	PN	PN	PN	CENTAM	CENTAM	CENTAM
22FEB85	TOTAL	TOTAL	% GROWTH	% CENTAM	% CENTAM	TOTAL	TOTAL	% GROWTH	% CENTAM	% CENTAM	TOTAL	TOTAL	% GROWTH
	1979	1985	Since 79	1979	1985	1979	1985	Since 79	1979	1985	1979	1985	Since 79
Pers	21000	40000	90	27	18	8000	11500	44	10	5	77500	226500	192
Tanks	7	10	43	64	7	0	0		0	0	11	145	1218
Arm Veh	40	40	0	35	11	16	16	0	14	0	115	352	206
Arty	38	135	255	51	47	0	0		0	0	74	285	285
ADA	0	12		0	6	0	0		0	0	78	224	187
Aircraft	65	95	46	23	23	33	50	52	12	12	277	420	52
Navy>65'	10	8	-20	36	22	2	2	0	7	5	28	37	32
Pop (K)	6849	8000				1800	2160						
Mil/Kpop	3	5				4	5						

POINT PAPER

1. SUBJECT: Status of U.S. Military Personnel in El Salvador

2. DISCUSSION:

- The U.S. Military continues to support/comply with the limit of 55 trainers IAW with established guidelines.

- The medical and related humanitarian training and assistance team is not counted against the 55-man limit.

- Numerous short term/staff assistance visits (SAV) are conducted from one day to two weeks by U.S. military personnel. Purpose of SAV's is to enable USMILGP to better perform its mission. These visits are not counted against the ceiling.

- USDAO and Marine Guard perform normal missions in support of U.S. Embassy activities and do not serve security assistance function. Number of personnel assigned to Marine Guard Detachment is not provided for security reasons.

- In Mid-February, there were also 21 U.S. civilians in El Salvador working to implement programs funded by U.S. security assistance including a Bell Helicopter Maintenance Team (8) and a DA UH-1H Quality Assurance Team (7).

- Personnel Status as of Mid-February 85:

Organization	U.S. Military Non-Trainers	U.S. Trainers Subject to 55-man Limit
USDAO (Assigned)	9	
USDAO (Temporarily Assigned)	17 (Normal)	
MILGP	11	
Staff Assistance Visits (Mil)	9	
Bell Helicopter Maintenance Team	8	
Medical Training Team	19	
Engineering & Technical Service Specialists*		23
Mobile Training Team*		28
TOTAL:	73	51

* Because of the training mission of these personnel, they are the individuals counted against the Administration's self-imposed 55-man limit on trainers.

Chairman **Goldwater**. Thank you very much, General.

Next we have Gen. Robert Kingston, Commander in Chief, U.S. Central Command.

General, we are very honored to have you. You can read your testimony or put it in the record, summarize it any way you want.

STATEMENT OF GEN. ROBERT C. KINGSTON, U.S. ARMY COMMANDER IN CHIEF, U.S. CENTRAL COMMAND

General **Kingston**. Mr. Chairman and members of this committee, thank you for the opportunity to address this forum.

Mr. Chairman, if my successor is with me today, I did not bring him, unlike my comrade on the right. [Laughter.]

Today I would like to present my assessment of the U.S. Central Command area, an updated status of the command and its accomplishments, and a summary of my most pressing needs.

As you allowed, Mr. Chairman, I will present brief remarks, and I have a prepared statement for the record.

INTRA- OR INTER-REGIONAL CONFLICTS

No part of the world can rival the U.S. Central Command and its environs in terms of destabilizing intra- or inter-regional conflict. The Afghan resistance to the Soviet occupation, the border struggle between Ethiopia and Somalia, the Ethiopian-Eritrean separatist movement, the Pakistan-Indian tension, the Sudanese internal problems, and the Iran-Iraq war are current examples of such instability in the area.

Three times since I have talked to you last year elements of my command have been deployed in response to actions that threaten the stability in the area. The first was the bombing of the radio station in Omdurman, Sudan, last March, which prompted a request for help from Egypt and Sudan in response to that activity. My command employed AWACS surveillance and support aircraft.

The second incident was in June when we deployed or when I deployed KC-10 aircraft, providing support to the Saudi Arabian F-15's in response to Iranian attacks on shipping in the Persian Gulf last July. In August we responded to requests from Egypt and Saudi Arabia when a mining threat in the Gulf of Suez and the Red Sea endangered shipping through those vital waterways.

CENTCOM DEPLOYMENTS

The success of CENTCOM deployments, I think, brought significant and visible results. I believe that they improved our credibility and demonstrated our commitment to friendly countries in the area.

Regional conflicts, the tragic famine in Africa, and increased levels of terrorism continue to destabilize the region and its neighbors. The Soviet Union poses a long-term threat to peace and stability in the region. The Soviets continue to expand their presence and apply pressure on regional states.

We are working to encourage friendly nations to improve their military ability. Our exercise program has been developed to serve as the cornerstone of this effort. Our exercises are designed to work with host country forces as well as to enhance U.S. capabilities to deploy and employ forces and to improve our combat readiness.

Gallant Knight, conducted last May, was the fifth in a series of Conus CPX's and involved over 1,500 U.S. Central Command personnel. We focus on specific objectives in areas of joint operations, sustainment, and special operations. I believe that this series of exercises provides data and insight for the refinement of our command and control procedures and for our contingency planning.

Field training exercises such as Gallant Eagle, which was conducted in September in a semidesert environment of our Southwest, saw forces deployed in 21 different environments, different locations in six Western States, and they moved by rail, road, sea, and air. In all, approximately 50,000 personnel participated in that exercise. Participants from the United Kingdom and observers from Jordan, Egypt, Pakistan, and Oman had the chance to observe both our regular forces and our Reserve Forces that participated in that exercise.

SECURITY ASSISTANCE PROGRAMS

I think we have also assisted in improving the area's defense posture and promoting interoperability of the Gulf defense forces through our security assistance programs. The activities of the Gulf Cooperation Council to develop a mechanism for dealing with regional security problems and defense issues has been encouraging.

Security assistance, host nation support and access are frequent topics during my visits to leaders within the area. I believe that these visits are extremely important, as they enhance our ideas and maintain our visibility within the area.

At the conclusion of a forthcoming trip next month, I will then have visited 14 of the 19 countries in the area in which we have security assistance programs. In the last 3½ years it has been a long, arduous row to hoe as they are now asking for U.S. Central Command personnel and myself to come visit the countries while before we had to ask for entrance into those countries. I think this is a great turnaround.

Our efforts are beginning to pay off in other ways. Two years ago we had no agreements with countries in the area. To date, we have negotiated agreements for the storage of POL and dry cargo and certain other pre-positioning equipment within seven countries in the area. I believe we have made considerable progress in this area.

Other areas where I think we have made progress is that my command, in close cooperation with the Department of State and DOD, has developed a strategy for obtaining host nation access and agreements to place transportable communication equipment within the area. Until an in-place infrastructure is available, my forces must continue to deploy communications support with our deployed headquarters and our component forces. New tactical deployable communications equipment is becoming available, and our tactical capability is improving.

MOBILITY

In the area of mobility, our initiatives focus on rapid deployment of combat forces. Significant factors to a rapid response capability are the development of intermediate staging facilities and logistics over the shore concepts. Logistics-over-the-shore was developed to overcome the lack of improved ports within my area. With LOTS we will be able to move cargo from ships through unimproved ports and over the beach. The efforts to enhance effectiveness and flexibility in such ships as the auxiliary crane ship and the fast sealift ships have been designed or adapted to USCENTCOM mission. They provide for rapid movement, onload and offload of cargo, and improved our deployment times. The ships are also available to support the other CINC's, if so directed by the JCS.

Additionally, pre-positioning of selected commodities makes available valuable lift resources, allowing transport of more combat forces earlier in the deployment. Large quantities of selected bulk supplies such as water, fuel, and ammunition are necessary to sustain my forces. We are exploring commodity procurement within the area, and bulk storage of some of these commodities both ashore and afloat.

MEDICAL AREA

In the medical area, CENTCOM components are improving sustainability by pre-positioning medical assets in or near the area. For example, the Army has pre-positioned one 400-bed field hospital and two medical resupply sets and aeromedical evacuation supplies in the area.

The Navy's rapid deployable medical facility is afloat aboard the NTPS and will provide support to the U.S. Marine Corps. The Air Force has an air mobile aeromedical staging facility pre-positioned in the AOR for support of all services. Other facilities are available in CONUS for pre-positioning as storage space becomes available.

A modest investment in CENTCOM requirements now contributes to our deterrence, yielding an immediate return. More importantly, continuing that investment contributes to strong, friendly states, and should we be required to fight, produces long-term dividends and burden sharing.

In my area we have no alliance structure, no significant force presence, and little host nation support in infrastructure. Because of these, I am critically dependent upon mobility assets to move my forces and the means to sustain them.

Enhancements to both sea and airlift must be continued. Programs such as the procurement of additional KC-10 refuelers, the C-17 and the C-5B aircraft, the auxiliary glider ships and maritime pre-positioning ships should be continued.

SUSTAINABILITY

Another major concern is in the area of sustainability. Until recently our tendencies had been to bow-wave funding for war reserve material. This continually dilutes our efforts to provide sufficient petroleum, spare parts, and munitions to support the initial surge that would be required in a major conflict.

Some other ongoing programs requiring support include the need to improve theater and strategic intelligence collection by obtaining additional RC-135's. Improvements in Special Forces continue to be important. We need your support for funds to procure additional MC-130H aircraft, increased force structure, and to develop and produce a joint advance rotary wing aircraft.

A near-term solution for improving the unified and specified command preparations would be the authorization of a Joint Chiefs of Staff special fund. For a relatively modest investment this fund would allow the commanders in chief of the unified commands to continue to fulfill their high priority operational needs and respond to unseen contingencies.

A good example is the mine clearing operation that we conducted in the Gulf of Suez and the Red Sea last July and August. Many of these were unanticipated, unprogramed and unfunded, and most of them are externally required and directed.

PERSONNEL

In the personnel area, sir, specifically in the area of manpower recruiting and retention, we must not be shortsighted. By 1989 the military will need to recruit one out of almost every three 18- and 19-year-olds who are not in college or disqualified from service. This means if we are to continue the all-volunteer force, we must keep military compensation competitive with the civilian job market.

Speaking of people, I continue to be concerned about the terrorist threat to the personnel, ships, and facilities in my area. We are working with the Department of State, other agencies and host nations to improve the security of our people and their working and living environments.

CHEMICAL MUNITIONS

Another requirement deals with chemical munitions. The lack of funding for the binary weapons program continues to stall the modernization of our national chemical weapons stockpile. A viable and modern chemical posture I believe is our best defense or deterrence against the use of chemical warfare by future and potential adversaries.

FOREIGN MILITARY SALES

Before closing, I would like to add a few words concerning foreign military sales. I realize that this country cannot bankrupt a great percentage of the poorer countries in this world, and that I am not the only CINC that will be appearing before you gentlemen with such requests. However, I advocate extending credit terms to those countries who do not have adequate cash reserves. I support increases in grant aid where warranted and ask that you give serious consideration to authorizing concessional terms to selected FMS customers who wish to pay but cannot afford the steep interest rates.

I am also aware of the risks of technological compromise inherent in sales of modern weapons and equipment to other nations. However, should we be required to fight beside these nations not only will our interoperability be enhanced, but the presence of support and maintenance equipment reduces what my components have to take with them.

When a country turns to the Soviet Union or other nations, as some in my area have done, we lose not just a sale and interoperability, but ultimately we lose war fighting capability.

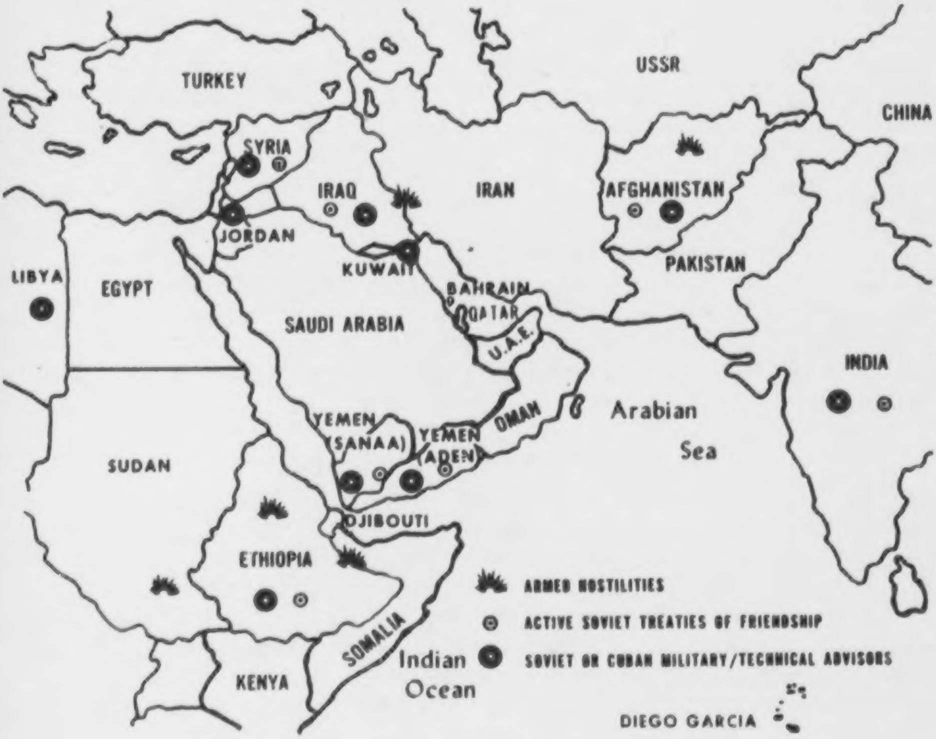
Our capability to respond in the U.S. Central Command has grown, and today I believe we are better prepared than ever before to respond to any request for assistance. The programs I have outlined will continue that deterrent posture and show our resolve, and enable us, should deterrence fail, to protect our vital interests. I am confident that we are on the right track, and with your support, equally confident that the U.S. Central Command will continue to accomplish its missions.

I thank you.

[The prepared statement of General Kingston follows:]

Prepared Statement of Gen. Robert C. Kingston, U.S. Army, Commander in Chief, U.S. Central Command

Mr. Chairman and members of this committee, thank you for the opportunity to address this forum. Today, I would like to present my assessment of the USCENTCOM area, an updated status of the command and its accomplishments and a summary of my most pressing needs.



BACKGROUND

No part of the world can rival the USCENTCOM area and its environs in terms of destabilizing intra/inter-regional conflict. The Afghan resistance to Soviet occupation, the border struggle between Ethiopia and Somalia, the Ethiopian-Eritrean separatist movement, Pakistani/Indian tensions, the Sudanese internal problems and the Iran-Iraq war all threaten to spill over into other states that could possibly lead to a superpower confrontation. These regional conflicts, the tragic, long-term famine in Africa and the increased levels of state-sponsored terrorism continue to destabilize the region and its neighbors.

In addition to these threats, the Soviet Union poses a long-term threat to peace and stability in the region. The Soviets have increased their capabilities to extend their presence and apply pressure on regional states. Since Moscow has little to offer toward the economic development of the region and even less appeal as a political or social model, its hope for influence lies primarily in exploiting regional differences and conflicts.

CONTINGENCIES

Three times since I last talked with you, elements of my command have been directly involved in "real world" operations in response to actions that threatened the stability of the area.

The bombing of the radio station in Omdurman, Sudan, in March 1984, prompted a request for help from Egypt and Sudan. In response to this request, we deployed AWACS surveillance and support aircraft.

The second operation occurred in June 84 when we provided KC-10 support on a daily basis for Royal Saudi Air Force F-15s in response to Iranian attacks on shipping resulting in the Saudi shootdown of an Iranian F-4 (5 Jun 84). The aircraft are still supporting Saudi Arabia from a base within that country.

In July 84, once again we responded when a mining threat in the Gulf of Suez and the Red Sea endangered shipping through those vital waterways. At Egypt's request, we provided surface and helicopter mine countermeasures (MCM) assets to insure the safety of international waters. We also responded to a similar request from Saudi Arabia, deploying MCM assets to Saudi territorial waters.

In all these cases, our specially tailored forces arrived in a timely manner, operated in support of friendly forces and departed when their mission was accomplished. The signal was sent that we stand by our friends and are prepared to back our words with actions and to help prevent situations from escalating. You will note that, at the completion of each of these deployments, the forces returned to their bases in CONUS with the exception of the USNS Harkness which returned to survey operations in the area and the USS LaSalle which returned to operations in the Persian Gulf.

FORCES

Currently, I have only three operational elements stationed within the area. Through my Army component, I exercise operational command of the American troops of the Multinational Force and Observers in the Sinai Peninsula. The USCENTCOM Air Force component controls the ELF-ONE AWACS and tanker assets at Riyadh that support Saudi Arabian air defense. The largest element is the four surface combatants and one command ship of the Mideast Force in the Persian Gulf that is the responsibility of my naval component.

In addition to these deployed forces, the Joint Chiefs of Staff allocate fighting and support forces to me for planning purposes. Currently, USCENTCOM has planning forces provided from all four military Services to include both Active and Reserve Component units.

USCENTCOM FORCES FOR PLANNING

Army: Commander, US Army Forces Central Command (USARCENT), Third Army Commander at Ft. McPherson, GA: 4 Divisions; 1 Air Cavalry Brigade; and Combat Support/Combat Service Support Forces.

Air Force: Commander, US Central Command Air Forces (USCENTAF), 9th Air Force Commander at Shaw AFB, S.C.: 7 Tactical Fighter Wings and 2 Strategic Bomber Squadrons.

Navy: Commander, US Naval Forces Central Command (USNAVCENT), Located at Pearl Harbor, HI: 1 Surface Action Group; 3 Carrier Battle Groups; and 5 Maritime Patrol Air Squadrons.

Marine: Commander, First Marine Amphibious Force (USMARCENT when designated), I MAF at Camp Pendleton, CA: 1 1/3 MAF.

SOF: Commander, Special Operations Command Central (SOCCENT), Collocated with HQ USCENTCOM at MacDill AFB, Fl: 1 Special Forces Group; 1 AF Special Operations Wing; and 1 Naval Special Warfare Task Group.

Army airborne, air assault and mechanized units available for planning are organized with increased mobility and firepower. They are capable of rapidly deploying along with their combat support and combat service support forces to my area of responsibility (AOR) with formidable combat power.

Units from the United States Air Force provide a wide range of strategic and tactical capabilities. The conventional bomber forces, tankers and strategic reconnaissance forces are provided by the Strategic Air Command. Tactical Air Command units provide air superiority, close air support, interdiction, electronic combat, tactical aerial reconnaissance and airborne command and control capability employing a wide variety of aircraft including the F-16, the F-15, and the E-3A. Airlift of our forces would be accomplished by aircraft from the Military Airlift Command to include the Civil Reserve Air Fleet (CRAF), when activated.

In addition to the Mideast Force, my Navy component has a planning force composed of three Aircraft Carrier Battle Groups comprising over 50 surface and subsurface combatants including supply and support ships. Two Amphibious Ready Groups are also available for planning. These groups would be composed of various types of amphibious vessels including command and control ships, amphibious landing ships, and helicopter or Vertical/Short Take-Off and Landing (V/STOL) platforms. Five squadrons of P-3 maritime patrol aircraft, 13 ocean-going minesweepers and a squadron of mine countermeasure helicopters can also be available for USCENTCOM operations.

Four Marine Amphibious Brigades (MAB) are designated for planning. During fiscal year 1985, four combination container roll-on/roll-off ships will be deployed in the eastern Atlantic with equipment and supplies sufficient for 30 days combat action for one of the MABs. Another MAB has its principal items of equipment in storage aboard six Near-Term Pre-positioning Force (NTPF) ships stationed at Diego Garcia Island in the Indian Ocean. On order, the personnel of these MABs can be deployed by air or sea to join their pre-positioned equipment at a port in my area. The two additional MABs would deploy to the area aboard amphibious ships provided from the Navy planning force.

Rounding out forces designated for planning is the Special Operations Command Central (SOCCENT). This command is made up of various units, including Army Rangers and Special Forces, Air Force Special Operations Forces, and a Navy Special Warfare Task Group. This small, highly skilled force is particularly useful in peacetime training of host country forces and for small exercises when larger forces would not be appropriate.

ACCOMPLISHMENTS

The success of USCENTCOM deployments which I discussed earlier brought significant and visible results. I believe that they improved our credibility and commitment to friendly countries in my area.

We are working to encourage friendly nations in the region to improve their military ability. Our exercise program was developed to serve as the cornerstone of this effort. Each exercise is designed to work with host country forces as well as to enhance U.S. capabilities to deploy/employ forces, and improve combat readiness.

GALLANT KNIGHT 84 (8-12 May 1984), involving over 15,000 military personnel, was the fifth exercise in the series and was an Employment Command Post Exercise (CPX) conducted at Fort Bragg, North Carolina and the Naval War College, Newport, Rhode Island. We focused on specific objectives in the general areas of simulated joint operations, sustainment, and special operations. This series of exercises provides meaningful data for additional insight and refinement of command and control procedures and contingency planning.

Field Training Exercise (FTX) GALLANT EAGLE 84 (5-11 Sep 1984) saw forces deployed to 21 different locations in six western states by rail, road, sea and air. In all, approximately 50,000 military personnel participated in the semi-desert environment of our own southwest under the command and control of HQ USCENTCOM. Additionally, observers from the United Kingdom, Jordan, Egypt, Pakistan and Oman had the chance to scrutinize our capabilities. In these FTX's, large numbers of forces participate at moderate expense and augment the odd year BRIGHT STAR exercise series in our AOR. Both series of exercises are especially useful to the USCENTCOM program.

These exercises as well as our smaller scale, more specialized exercises are also invaluable in promoting increased understanding and mutual respect between U.S. and host nation military personnel.

On a parallel course, I am encouraged by the activities of the leaders of the Gulf Cooperation Council (GCC) to develop a mechanism for dealing with regional security problems and defense issues. The progress made in the conduct of combined GCC exercises and the development of plans for the establishment of a regional military reaction force and an integrated air defense system can, if carried to fruition, provide a means for resolution of intra-regional problems. These actions and plans could be a valuable step toward promoting Gulf stability.

USCENTCOM can also assist in the improvement of the area's defense posture and promote interoperability of the Gulf defense forces through our security assistance effort. Ongoing programs, which are the responsibility of the Departments of State and Defense, are coordinated and supported by USCENTCOM. They promote both national and regional security interests against a range of threats, while supporting a basic strategy of deterrence. I will discuss problems with foreign military sales in a few moments.

In addition to our security assistance effort, we continue to develop initiatives for Host Nation Support (HNS) within the area. These initiatives are designed to establish a foundation from which we can support our forces if and when they are deployed. Unlike the European theater, where there exist a multitude of support agreements on a government-to-government basis, the nations of my area are hesitant about becoming overly dependent or politically aligned with either superpower. Additionally, it is politically sensitive for them to negotiate formal HNS agreements. Progress in this area is slow but positive.

Security assistance, host nation support, and access are frequent topics during my visits to the area. These visits foster an excellent opportunity to exchange ideas on these subjects and maintain our visibility within the area. At the conclusion of my trip next month, I will have visited 14 of the 19 countries in my area of responsibility where we have security assistance programs.

Overall progress in the USCENTCOM area, in many cases, hinges on and has been measured by our ability to gain access into the countries. Our efforts, to include my visits, are beginning to pay dividends. Two years ago, we had no agreements with countries in the area. To date, we have negotiated agreements for storage of POL and dry cargo within seven countries of the area. We continue to refine our country specific requirements and fully understand the political and economic considerations which necessitate our need for flexibility in this arena. We are patient and flexible, and expect continued progress.

Here are some other areas where I believe we have made progress.

For my communication needs, my requirements have been validated in concept and more importantly, funding has been programmed. The theater communications capability identified in specific requirement documents will provide the strategic connectivity for command and control, operations, logistics and administrative communications support to my headquarters and other military agencies in the region. My command has been in close coordination with DOD and the State Department in the development of the strategy for obtaining host nation access agreements to place transportable communications facilities within the area. Until an in-place infrastructure is available, we must continue to deploy all communications support with our deployed field headquarters.

New tactical deployable communications equipment is becoming available and our tactical capability is improving. Exercises have given us the opportunity to deploy tactical communications systems to the area, establishing connectivity into the Defense Communications System (DCS) and to subordinates. Exercises and "real world" deployments have provided excellent training with these systems in the unique environment of the USCENTCOM area.

In the area of mobility, our initiatives have been designed to meet threats in the area and focus on the rapid deployment of combat forces. Integral to a rapid response capability is the development of Intermediate Staging Facilities (ISF) and logistics-over-the-shore (LOTS) concepts. ISF's will provide relatively secure locations within the AOR to stage personnel awaiting employment. Each ISF will temporarily accommodate 6000 personnel (a brigade-size task force). This will require pre-positioning limited supplies and equipment at each site to allow accompanying unit equipment loads and supplies to remain intact for forward deployment. I envision only limited, austere MILCON at each ISF.

I need ISF's to accommodate approximately one third of the program force. Their locations would be within the area but beyond range of most threat aircraft. ISF's directly support mobility by reducing transit times and numbers of transport assets required, and carry a lower risk than a one-stage deployment.

LOTS was developed to overcome the lack of improved ports within the area. With LOTS, we will be able to coordinate the movement of cargo from ships through unimproved ports.

To enhance our effectiveness and flexibility, ships such as the auxiliary crane ship (TACS) and fast sealift ships (FSS) have been designed or adapted to the USCENTCOM mission. They provide for rapid movement, onload and discharge of cargo to improve our deployment times. Additionally, pre-positioning of selected commodities makes available valuable lift resources allowing transport of combat forces earlier in deployment. This linking of innovative material handling capability with pre-positioned stocks economizes resources and increases our effectiveness within the area.

Large quantities of selected bulk supplies (e.g. water, fuel and ammunition) are necessary to sustain a force. Due to the uniqueness of the AOR, we are exploring commodity procurement within the area and bulk storage of some of those commodities ashore and afloat. The procurement and positioning of water production and distribution equipment, such as the Reverse Osmosis Water Purification Unit (ROWPU), is an example of efforts to sustain the force with bulk commodities.

In the medical area, USCENTCOM components are improving sustainability by pre-positioning medical assets in or near the area. For example, the Army has pre-positioned one 400 bed field hospital, two medical resupply sets and aeromedical evacuation supplies. The Navy's Rapid Deployable Medical Facility (RDMF) is afloat with the NTPF to provide support to the Marine Corps. The Air Force has an aeromedical staging facility (ASF) in the AOR for support to all Services and has other medical assemblages (250 bed hospital and 250 bed ASF) available in CONUS for pre-positioning as storage space becomes available in the AOR. In addition, we are in the process of implementing a memorandum of medical cooperation with one of the countries which will provide us with our first formal host nation hospitalization capability and medical evacuation node in my area. This can be of vital importance for contingency operations, natural disaster, and responding to acts of terrorism impacting on U.S. personnel and facilities.

I believe, given the political environment of the region, that these accomplishments are substantial. However, despite this progress, we must continue to strengthen the deterrent posture in the USCENTCOM area.

REQUIREMENTS

A modest investment in USCENTCOM requirements now contributes to our deterrence yielding an immediate return. Perhaps more importantly, continuing that investment contributes to nation building and, should we be required to fight, produces long-term dividends in burden sharing. These requirements can be grouped into two categories. First are DOD programs that require your support in the form of authorizations and second, are those that require specific Congressional action. Please note that all unified commanders have these same requirements; however, in my area we have no alliance structure, no significant force presence and little host nation support and infrastructure. Because of these shortfalls, I am critically dependent upon mobility assets to move my forces and the means to sustain them.

Enhancement of both sea and airlift needs to be continued. Programs such as the procurement of the KC-10 refueler, C-17, C-5B, The Auxiliary Lighterage Ship (TALS), and the Maritime Pre-positioning Ships in conjunction with the pre-positioning of off-load equipment and the continuation of afloat pre-positioning (MEDNTPS/NTPF) will enhance force closure rates and provide a stronger deterrence to Soviet aggression. I support the funding of these programs.

Another major concern is in the area of sustainability. Until recently, our tendencies have been to bow-wave funding for war reserve materiel to provide a near-term offset whenever defense budget cuts are enacted. This continually dilutes our efforts to provide sufficient petroleum, spare parts, and munitions to support the initial surge that could be required in a major conflict. The funds that are expended in this area do not always produce an immediate return because of the long lead times required to purchase sophisticated weapons. Of particular concern is the stockage level of air-to-air missiles. In my area, these missiles would enhance our air superiority capability allowing the F-111 and other tactical aircraft such as the new F-15E to perform their vital deep interdiction role. Similarly, the F-16, coupled with the low-altitude navigation targeting infrared system at night (LANTIRN), will continue to enhance the intermediate and close air support capabilities of my Air Force component forces. As an adjunct, the spare parts that would maintain the sortie rate of our aircraft and jet fuel are necessary to support the overall effort.

Next, I would like to address some other ongoing programs. These include the need to improve theater and strategic intelligence collection by obtaining additional RC-135's and improving the capabilities of USCENTCOM tasked Air National Guard RF-4C sensors. As you know, effective intelligence collection and strategic warning are overriding considerations in the execution of my operations plans. Likewise, it is important that additional medical care within the AOR be provided by the procurement, pre-positioning, and maintenance of deployable medical systems (i.e., hospital ships, air transportable hospitals and other field hospital facilities). Money the Services have programmed in these areas should be authorized. Special Operations Forces continue to play an important role in my AOR. To assist this capability, we need your continued support for funds to procure additional MC-130Hs, increase force structure, and develop and procure the Joint Advanced Rotary Wing Aircraft (JVX).

Now turning to those requirements that will take specific Congressional action.

A near-term solution for improving unified/specified command preparedness would be the authorization of the Joint Chiefs of Staff (JCS) Special Fund. This appropriation will provide immediate reimbursement for the expenditure of O&M funds in support of time-sensitive unforeseen contingency or emergency situations which will adversely impact on readiness and warfighting capability. For a relatively modest investment, this fund will allow the CINCs to continue to fulfill high-priority operational needs and respond to unforeseen contingencies or situations.

In the personnel area of manpower, recruiting and retention, we must not be short-sighted. Last year, in the Congressional Record, Congressman Aspin highlighted the fact that during the 1980s the recruit pool will decline by about 25 percent. By 1989, the military will need to recruit 1 out of 2.7 18 and 19 year olds who are not in college or disqualified from service. What this means is that if we continue the all volunteer force, we must keep military compensation competitive with the civilian job market. Recent studies indicate that during fiscal year 1986 military compensation will fall 12.2 percent behind civilian pay if the July 85 pay raise is not enacted. So, on the one hand the manpower pool is shrinking and on the other, the incentives needed to recruit and retain qualified personnel are being reduced. This manpower problem will be compounded by the active duty end strength growth required to support the expansion of the Navy to a 600 ship fleet, the Air Force airlift fleet and the Marine Corps force structure.

A specific manpower deficiency is in the area of linguistic skills. I have a serious problem not only for intelligence and civil affairs but also for my Special Operations Forces. Legislation similar to Public Law 81-597 (30 Jun 1950) that will allow the recruitment of promising foreign nationals possibly could fulfill my linguistic needs by supplementing the declining manpower pool.

Historically, we must remember that our single most important military advantage has been well trained and highly motivated personnel.

I continue to be concerned about the terrorist threat to U.S. personnel and facilities in my region. We are working with the Department of State and other federal and DOD agencies to increase the security and safety of our people and their environments.

Another requirement deals with chemical munitions. This past year my headquarters staff and component forces as well as supporting CINCs have improved and exercised all aspects of NBC readiness. However, the lack of funding for binary weapons program continues to stall the modernization of our national chemical weapons stockpile. Soviet capabilities, potential willingness to employ, and a vast array of persistent and non-persistent chemical munitions are matters of concern.

If funding for the production of the BIGEYE bomb and other binary munitions is not to become a reality in the near future, steps must be taken to improve the present national stockpile. While the binary program is required for total modernization, the requirement is real and immediate to provide U.S. forces with a retaliatory deep strike capability for the air-land battlefield. A viable and modern chemical posture is our best deterrence against the use of chemical warfare.

Next, it is difficult to foster military-to-military talks, civic action programs, and bilateral planning and exercises when DOD controlled funds are not available to theater commanders. Currently the law requires total cost recovery from foreign exercise participants. This stipulation presents political/military stumbling blocks and creates misunderstandings. Many of the less economically solvent nations are willing to host U.S. visitors at their own expense and cannot understand our inability to reciprocate. Other unified commanders should be authorized expenditures similar to those present in NATO standard agreements.

Before closing I would like to add a few words concerning Foreign Military Sales (FMS). The economic conditions within my AOR range from the richest to the poorest countries in the world. In the face of economic reality and to support our stated goals, I advocate extending credit terms to those countries who no longer have "unlimited" cash reserves, support increases in grant aid where warranted, and ask that you give serious consideration to authorizing concessional terms to FMS customers who wish to pay, but cannot afford steep interest rates. A combination of these revised FMS terms could further help the regional countries help themselves.

As a military man, I am aware of the risks of technology compromise inherent in sales of modern weapons and equipment to other nations. On the other hand, the benefits of stronger friends more capable of defending themselves are well established. FMS involves more than just hardware; the training and logistics support provided are also dividends. Should we be required to fight beside these nations, not only will our interoperability be enhanced, but the presence of support and maintenance equipment reduces what we must take with us. When a country turns to other allies or to the Soviet Union, as some have done, we lose not just a sale and interoperability, but, ultimately, warfighting capability. I ask that when considering sales packages that DOD and the administration have recommended you weigh these positions in those terms.

CONCLUSION

I recognize that there are no overnight solutions to some of the problems mentioned here today. In just over two years, USCENTCOM has made progress in improving our military relationships with important countries within the region. Likewise, our capability to respond has grown, and today we are better prepared than ever before to respond to requests for assistance. The U.S. must remain resolute and be prepared to take whatever actions are deemed appropriate to maintain and enhance our policy of deterrence within the region.

The programs I have outlined today will contribute to that deterrence posture, show our resolve and enable us, should deterrence fail, to protect our vital interests.

I am proud of USCENTCOM's accomplishments to date. Much hard work brought this Command to where it is today. But, much also remains to be done. I am confident we are on the right track and, with your support, equally confident the United States Central Command can continue to accomplish its mission.

Chairman **GOLDWATER**. Thank you very much, General.

Now we will turn the meeting over to questions. I just have one to start with, and then we will go down the line.

MEXICO

This is addressed to General Gorman, and it concerns the country of Mexico. I understandably have a great interest in Mexico because I was born on the border of Mexico. In fact, I spoke Spanish before I spoke English.

A friend of mine—I will not call him a close friend—Manuel Moreno Rivas, a very well-known businessman in Mexico, spoke very recently in Tuscon, AZ, on the subject of the United States threatened by Mexico. And the problem that he comes up with—and I am going to put his whole speech in the Congressional Record today—the problem that he comes up with is the beginning apparentness of the ability of Soviet philosophy to make inroads, further inroads into the Mexican mind.

General Gorman, I wish you would comment on that. I think at one time or another you did touch on it. But I think it is most important that this committee understand very thoroughly that one of the consequences of a poorly conducted campaign in Central America can be an ultimate campaign on our own border.

Would you care to comment?

General **GORMAN**. Yes, sir. But I would first remind you that it was just 1 year ago, exactly to the date, when we had our last conversation on this topic. The Department of State has a little circular that they put out that has one of those features in it, "this time a year ago, this time 5 years ago, 10 years, 20 years and so on." You ought to know that this week it says that 1 year ago was the date which General Gorman in front of this committee made a statement concerning Mexico which occasioned a good deal of press notice. Mexico lies outside the area of my responsibilities. And as the Department of State last year pointed out, while I am entitled to my personal opinion on such matters, I cannot comment officially.

You should also know that I was disinvited from GRITO and had a number of my other activities, like refueling in Mexico, made very much more difficult as a result of our last exchange on this matter. And so I want to preface my next statement by saying anything hereafter does not count against Jack Galvin. [Laughter.]

Chairman **Goldwater**. Well, General, you are pretty much in the position I am in. You are retiring, and I am retiring, so we can say pretty much whatever we want. [Laughter.]

General **Gorman**. I continue to believe, sir, that Mexico is one of the two countries in Latin America that will in the long run determine the success or failure of United States policy in the region. The other, of course, is Brazil. By the year 2000 those will be the make-weights, other than the United States, in the hemisphere. And I am, as I indicated last year, gravely concerned about recent developments in Mexico.

I am a very strong supporter of President de la Madrid's campaign against corruption. I think that he has correctly identified one of the foremost problems in contemporary Mexican society. As we commented last year, the Mexican political system is a rigid system that may not be able to cope with the burgeoning problems of debt, overpopulation, unemployment, urbanization and the propensity to use violence for the solution of political problems.

Mexico is a dangerous country today because of endemic violence, political and otherwise, and the difficulties that the governing party has had in accommodating the growth of the political opposition there. The recent outburst of violence in the north is indicative of problems that that country faces downstream.

But with respect to Soviet influence, I can only comment that there is a very large Soviet mission in Mexico City. Soviets have been very active there for a variety of reasons which affect my region. And so I can testify that they have indeed established themselves in some numbers, and they do have obviously a great deal of influence there. The extent of that influence in Mexico I simply do not know. I would be prepared to believe Senor Moreno's assertions based upon what I know, but I cannot comment any further than that.

Chairman **Goldwater**. I know that it has given you some concern, and whether it comes under your command or not, it is pretty close to your command, and I think in my own mind constitutes the creation of a problem that I do not believe many Americans are aware of.

In my own humble opinion it is probably the biggest problem of confrontation that we are faced with. It may not come the day after tomorrow, but I think of the many times I have been in

Mexico, and after a few tequilas, my paisanos down there will say you took the land away from us, and some day we are going to get it back. And I think that is quite hazardous.

Now, any time you feel that you have something to add on this, I wish you would talk to me personally. I will not call Mr. Shultz, and I will just keep it in the back of my own little mind. [Laughter.]

Thank you very much.

Senator Nunn, do you have a statement?

Senator NUNN. Mr. Chairman, I join you in welcoming Generals Gorman and Kingston to the Armed Services Committee this morning.

I look forward to hearing from each of these distinguished commanders because they are the senior U.S. military officers in areas of the world that are of great concern to the United States. General Gorman, as Commander in Chief of the Southern Command, is responsible for Central and South America. As such, he is concerned with such vital issues as the future of Mexico, the activities of the Sandinistas in Nicaragua, and the insurgency in El Salvador. Although there are many challenges facing the United States in this region, there are also some success stories. High on that list must be the accomplishments of President Duarte in El Salvador and the recent gains of democracy elsewhere in the region.

General Kingston, as Commander in Chief of the U.S. Central Command, also faces enormous challenges. His command responsibilities include northern Africa, the Arabian peninsula and the Persian Gulf, areas which are daily in the news and of major importance. Issues of particular concern are the Iran-Iraq war, the support of terrorism by Libya, and the tragic drought in Africa.

Mr. Chairman, I share your concerns. I have a series of questions I was going to ask General Gorman on Mexico, but I think he discouraged me with his opening gambit.

General Gorman, we appreciate the good job you have done. I followed your career long before you were in this position. You have been an outstanding Army officer, and you have done a tremendous job, I think, in every capacity you have served in, and I know you are going to be hanging up your hat, and we hope you will continue to give us your advice and the benefit of your experience.

General GORMAN. Thank you, sir.

Senator NUNN. You have done a great job for the country, and your successor who, I am sure, will patch things up with Mexico soon after he arrives. [Laughter.]

General Galvin has been an outstanding officer also, and I had the pleasure of knowing him when he was in my State. And so we are losing a good one and getting a good one in your place, but you will be sorely missed.

General GORMAN. Thank you.

HONDURAS

Senator NUNN. General Gorman, there has been a series of articles in the Washington Post about Honduras. The thrust of the articles, if I can capture it, was that the Hondurans were leery about the relationship with us and fearful that we might be pressing them into a confrontation with Nicaragua and then not back them up.

There were also reports in these articles that the Hondurans were concerned that we were not doing enough to resolve their border dispute with El Salvador.

Could you give us your general impressions of those allegations?

General GORMAN. Generally speaking, the reporting in that newspaper on Honduras leaves a great deal to be desired, in my view. Honduras is at the moment involved in electing a president. There is an electoral campaign under way, and so everything that occurs there should be gauged against the fact that Honduran leadership has to play to its local constituencies in addition to its international audiences.

The articles that you describe are correct in pointing out that the Hondurans are gravely concerned about what they perceive to be their exposed position. Their territory has been used for the staging of the Nicaraguan freedom fighters from the north, in particular that faction of the freedom fighters that is referred to as the Nicaragua Democratic Front, and the Misura and Misurasata groups of Indian rebels who have been operating against the Sandinistas.

The most violent incidents between Nicaragua and its neighbors have occurred on the Honduran border. You will recall that just about the time I arrived in command, there were two American correspondents killed on a road along that border, and there have been a series of other incidents since.

SOVIET ROCKET CASINGS

I just delivered here to Washington two casings for 122-millimeter rockets, one manufactured in the Soviet Union in 1983, the other manufactured in the Soviet Union in 1982. Those rocket casings were collected by a U.S. military attaché on the outskirts of a small Honduran village in southwestern Honduras close to the Nicaraguan border, which is by way of saying that along with other forms of harassment, the Sandinistas have not hesitated to use their advanced Soviet weaponry, in this case the rocket launcher DM-21, against Honduran territory.

The Hondurans are gravely concerned about what the Congress of the United States may decide with respect to future support for those Freedom Fighters. If Honduran calculations are correct, there could be 50,000 or more fleeing Nicaraguans to Honduras, many of them armed, many of them well trained, in the event that this support is withheld and the rebels are unable to find other sources of supply abroad. That calculus, incidentally, involves an estimate that there are perhaps 15,000 armed men that are dependent upon Honduran territory for their logistics support, but that those 15,000 armed men come from families inside of Nicaragua who would leave Nicaragua in the event that the resistance ceased. And if the fighting men then went north, the presumption is that they would take some portion or all of their extended families with them.

My own view of that is that the Honduran estimate is probably undershot; that is to say, there would be more refugees than the

50,000 that we are talking about. But Honduras is woefully incapable of dealing with the 20,000 to 30,000 refugees that they already have in hand. The prospect of having this large additional population thrown on a country that is the poorest in the region, with the social services least capable of coping, is, it seems to me, a matter for genuine concern on the part of the Hondurans.

There is no doubt, moreover, that many Hondurans, particularly those who are veterans of the 1969 war, regard the Salvadorans as their principal enemy, and they are gravely concerned, Senator, because they, the Hondurans, believe that the Salvadorans are winning their war. They believe that there will shortly be on the other side of the mountains a victorious Salvadoran armed force, trained, well equipped, ready to settle old scores. And those old scores include that border controversy.

Now, it is not for me to comment on the course of diplomacy, but I would tell you that I was in San Salvador just this past weekend, and I found there the most relaxed, optimistic attitude toward the resolution of the border problem that I have encountered in the past 2 years.

The Minister of Defense and several of his principal assistants had just been to Tegucigalpa, and had met with Honduran counterparts, Gen. Walter Lopez and his officers, and had returned confident that the problems to which you make reference can be resolved, and resolved in the near future.

So again, while I want to be very careful to avoid presenting too rosey a picture of events down there, I would tell you that things are moving in the right direction from the perspective of both the Hondurans and the Salvadorans. And that is a marked change. A year ago there was real intransigence, and I think that the public reporting on these matters tends to sort of lag events for obvious reasons. Nobody wants to talk about ongoing delicate negotiations.

Nonetheless, I think it is entirely fair to say that there are a lot of Hondurans out there who really believe that the problem is as much Salvador as it is Nicaragua, and they have got a great deal to fear from both.

Let me underscore how important is the fact that the Hondurans accepted onto their soil 5,000 Salvadoran soldiers into the Regional Military Training Center. That fact is a great tribute to the leadership of Honduras and its being able to cope with indigenous political problems, and with all of those nationalist antipathies natural in the Honduran junior officers. And that training was a great achievement. Although Salvadoran training is now suspended, the fact is we did train over 5,000 Salvadorans and 5,000 Hondurans side by side, and that cannot help but be a very positive factor in the resolution of that border conflict, and in the avoidance of further difficulties between those two countries. Leaders in both countries have acknowledged that to me.

Senator NUNN. Thank you very much, General Gorman.

PANAMA AREA

Let me ask another question about your region, the Panama area. Let's say the Panama Canal Treaty had failed in the Senate or had not been ratified. Where would we be in your opinion? After you answer that, could you tell us where we are regarding Panama now, in terms of smooth implementation of the treaty or lack thereof?

General GORMAN. We would be right back where we were without that treaty, Senator. We would be right where we were in 1977, entrenched on the banks of the canal. In contrast, I have just concluded exercise Kindle Liberty, which is the biennial exercise for U.S. forces engaged in the defense of the canal. This year for the first time that exercise was conducted outside of the former zone of the canal, 120 miles away out on the Azuero Peninsula. It was an exercise which moreover included a substantial amount of naval forces exercising against the terrorist threat of minings on the approaches to the canal.

The land forces were commanded by a Panamanian, and among the forces participating in the exercises, prominent among them, was what the Panamanians referred to as Battalion 2000, a force that has been raised by the Panamanians expressly to meet their responsibilities for the defense of the canal in the future.

The unit did very well in the exercise, and I think that virtually all visitors to it, our own and those of other nations, left that exercise with a new appreciation for the growing, mature, close relationship among the armed forces of Panama and the United States.

Now, none of that, sir, would have been possible without that treaty.

Senator NUNN. Would you say that treaty has been a positive aspect of our Central American policy?

General GORMAN. I would tell you that treaty had made it possible to do our job in Panama with substantially fewer forces than we otherwise would have had to position in Panama, and they would have been beleaguered forces at that.

The treaty has in fact freed up the United States for the larger purposes of policy in Latin America.

Senator NUNN. So you see it as a positive development.

General GORMAN. No question.

Senator NUNN. Mr. Chairman, my time has expired.

Chairman GOLDWATER. Thank you, Sam.

I think Senator Thurmond is next, and then Senator Glenn was the first Democrat here, so you can get warmed up. [Laughter.]

Senator THURMOND. I would like to join in welcoming General Gorman and General Kingston.

And General Gorman, I want to commend you for the long, capable and dedicated service you have rendered to your country. We regret your retiring. You are rather young yet to be retiring. But we wish you well.

Now, because these generals do not reside in Washington, I think they offer a different perspective on the status of our forces and their needs to conduct military operations in their areas of responsibility. I think it is important to note that the unified commanders who are the military experts for certain geographical regions are not asked to testify before the Foreign Relations Committee, as I understand. That is the case, is it not?

General GORMAN. I have testified before the House Committee on Foreign Affairs 2 years running, sir. Those are the only exceptions that I know of.

Senator THURMOND. But not the Senate, have you?

General GORMAN. No, sir.

Senator THURMOND. I think it would be helpful if you did testify concerning your military assistance programs in those areas. And it may be possible that our committee might encourage the Foreign Relations Committee to seek the valuable advice of these distinguished gentlemen.

GULF OF SUEZ AND RED SEA MINE COUNTERMEASURES

Now, General Kingston, you recently conducted an extensive mine countermeasures operation in the Gulf of Suez and the Red Sea, I believe.

General KINGSTON. That is correct, sir.

Senator THURMOND. The Navy has always been reluctant to spend large sums of money on mine warfare in general, despite the devastating effects such a capability can have. Do you feel that enough emphasis is placed on mine warfare by the Navy?

General KINGSTON. At the present time the Navy has plans to bring aboard new surface mine warfare vessels. Several will be commissioned this year. At the current time and as of last July and August when we were tasked to assist the Egyptians and other regional states and allies from Europe, we had to use a Helmineron squadron out of Norfolk. We had to fly that squadron's aircraft there in C-5 aircraft. We went to a friendly country in which an amphibious ship and a hydrographic ship were to pick up the mine countermeasure assets; we off-loaded the Marines who were on that amphibious ship. Those two platforms, the hydrographic ship and the amphibious ship, allowed us to conduct mine countermeasure operations from the surface platforms in our area allotted by the Egyptians. Had we had to do it from the shore, we would have had to have brought a lot more support personnel with us.

The Combined Coordination Committee, established by the Egyptians and participated in by the United Kingdom and the American forces, was instrumental in coordinating that effort. However, the forces of France, Italy, and the Netherlands did not choose to participate in the Combined Coordination Committee.

To answer your question, I think the Navy has realized that they have had a paucity of multipurpose minecraft, and they are taking steps to remedy that.

LANGUAGES AND DIALECTS

Senator THURMOND. General Kingston, in your prepared testimony you mentioned the need for legislation similar to Public Law 81-597, commonly referred to as the Lodge Act. I introduced such legislation on January 31 of this year. Would you outline for the committee the number of languages and dialects in your area very briefly?

General KINGSTON. I support that, Senator. A good example is in Afghanistan, you have 30 different languages and a multiplicity of dialects. There are three major areas in my area. I have Afghanistan and Pakistan and Iran. Then we have Jordan and all of the Saudi Arabian peninsula. Then in North Africa I have Egypt, Sudan, Ethiopia, Djibouti, Somalia, and Kenya.

The recognized major languages plus the different dialects are well over several hundred throughout those 19 countries. We need personnel to conduct our intelligence business, our special operations business, and as interpreter-translators in the major languages.

I do not believe we will ever get personnel to assist us until we actually are invited into the area for the different dialects. We have countries that have an official language that a great percentage of the population does not speak.

Senator THURMOND. So you feel that the Lodge Act, which I have introduced again this year, would be helpful?

General KINGSTON. I think it would be helpful in obtaining trained linguists for those types of forces and types of operations that I mentioned, sir.

AID TO THE CONTRAS

Senator THURMOND. General Gorman, there has been a great deal of controversy about aid to the Contras. Since you are retiring shortly, and I for one am very sorry that you have decided to do so, do you have any advice for the Congress concerning our relations with the Marxist Sandinista regime other than what you have said?

General GORMAN. Three bits of advice. First of all, the fundamental problem in Central America is Fidel Castro. And our relations with Cuba—again, a country, Mr. Chairman, which lies outside of my purview—but our relations with Cuba are crucial to the success or failure of U.S. policy in Central America.

The Sandinista regime in Managua is modeling itself after that in Havana, and the role of the Cubans in the country today is pervasive. They are involved in the military activities of the Sandinistas right down to the fighting unit level. They are engaged in most of the technical activities of the Sandinista armed forces, including, in particular, their intelligence operations.

The Cubans are broadly involved in the social reform programs of the Sandinistas, the Sandinistas having two principal ways of politicizing their population, one of them being the armed forces, and the other being nationally run, centrally directed programs such as the national literacy campaign or the national health campaigns, both of which are fundamentally designed to bring people into the regimens of the neighborhood block committee, and the other forms of organization that Cubans have developed to the *n*th degree in their own country.

And so I say first of all, you have to find a formula for dealing with Fidel Castro to provide him disincentives or serious reasons to stop his adventuring on the mainland. We have done that before. I think that can be done again.

A second bit of advice is that we have to find a way, as I indicated in my statement, to bring the Sandinistas to a reckoning. I do not know of any way to do that except to keep talking to them and to keep providing them adequate incentives to modify their behavior. Those incentives now bearing, as I indicated, are the existence of a substantial and growing resistance movement among their own people and the presence of U.S. military forces.

The Sandinistas have to be brought to realize that their connivance with Castro has brought about a major reversal in U.S. strategic policy. We began pulling out of Latin America in 1970, Senator. There would not even be a U. S. Southern Command today, I am convinced, had it not been for the propensity of these Marxist-Leninists to pursue their own goals, ignoring the aspirations and the needs of their peoples. But if they want us out of there, they, the Sandinistas, are going to have to modify substantially their agenda, and their modus operandi.

A third bit of advice is that we have to continue to support the threatened neighbors of Nicaragua, including Costa Rica, who has no substantial armed force. But I think you gentlemen should know that there is in training right now at the Regional Military Training Center in Honduras 45 Costa Rican officers who will be the leaders of a battalion of the Guardia Civil, the first such organization that that outfit has ever had.

Then you are going to have to deal with the Honduran problem that we just discussed. It is an acute one, and we are going to have to provide support for those people.

Specifically with respect to the freedom fighters, I believe they deserve the support of the United States. Now, how you do that, I would not presume to advise this body.

Senator **THURMOND**. General, my time is up. I have a few more questions here, if you would answer those for the record. And Senator Denton has asked me to propound a question. If you will answer that for the record, I would appreciate it, too.

Chairman **GOLDWATER**. Senator Glenn.

Senator **GLENN**. Thank you, Mr. Chairman, very much.

COMMITMENT TO HONDURAS

General Gorman, I gather from what you have said this morning that because of the situation regarding Honduras and Nicaragua, and Honduras and El Salvador, and the Mexican concern, that all of this put together would see us as being pretty much locked into the support of Honduras or having a commitment to Honduras in that area for the indefinite future. Would that be a correct statement?

General **GORMAN**. I think that we should always operate in there so that we could on very short order remove ourselves. We should remove ourselves as soon as we are asked to. We should remove ourselves as soon as the conditions that brought us there in the first instance no longer obtain.

I am not an advocate of any kind of permanent commitment. I do not think they want that. I do not think we ought to pursue it. But the circumstances right now argue our being there for the foreseeable future, yes. I think for the next year or two, or certainly until the present crisis is resolved, we are going to have to stay.

Senator **GLENN**. Just overnight we have had some rather dramatic new proposals by Mr. Ortega. I am sure you have looked at those, or probably know about them, or read them in the morning paper at least. Do you think those offer some hope, are they something we should give a chance to work, or do you see those as futile?

General **GORMAN**. I think we ought to examine very carefully any kind of proposal they put forward. And I believe that we should explore diplomatically directly with them and through their neighbors what precisely it is that Ortega has got in mind.

Senator **GLENN**. You would not just dismiss those proposals out of hand?

General **GORMAN**. I would not.

CONTADORA PROPOSALS

Senator **GLENN**. It is sort of an expansion of the Contadora proposals made previously. Do you see much hope for the Contadora process working out successfully?

General **GORMAN**. It is the only game in town, Senator. It is the only serious attack of the problem by the people who are most affected by it. It is the only process by which we can consult the needs and aspirations of Costa Ricans, Hondurans, Salvadorans, Guatemalans, and bring to bear on these the Panamanian, Colombian, Venezuelan, Mexican view. I do not see any other way to tackle the problem, so I am a supporter of Contadora. But like most of the people that have worked with the Contadora, and I am on at least the fringes of it, the first draft proposals lacked realism and lacked specificity. And if Mr. Ortega is going to help us in that respect, then I would say by all means, let us tackle his proposals.

COORDINATING POLICY AND MILITARY MATTERS

Senator **GLENN**. The Chairman yesterday when we had the Secretaries of State and Defense before us talked about the need to coordinate policy matters and military matters, and I agree with him 100 percent on that. As I said yesterday, I have been somewhat concerned that our policy changes in the Central American area have been rather—well, they have not been too rapid, but they have changed somewhat over the past couple of years.

We argued on the Foreign Relations Committee that I was on at that time whether we should have I think it was 37 advisers versus 54, and we debated for days about whether we were going to put it up to that number or not, and now we have seen quite a change.

General **GORMAN**. Both numbers are irrational, sir.

Senator **GLENN**. I do not disagree with that statement at all. But we started out in your command there with a purpose of stopping the inflow of arms to El Salvador. That was the overall purpose. That was all that was ever mentioned by anyone concerned with that area. Then we went to expanding our capability in that area. We went into Honduras, and we were doing the airstrip building and some other things that not everybody was aware of here. Now we have gone to the President talking about overthrow of the Nicaraguan Government as an objective.

If we are going to coordinate policy and our ability to carry out policy and defend our interest in these areas, I guess my question to you is through these changing policies have your assets or your orders as the top military man in that area been changed at all?

General **GORMAN**. I spend a lot of my time up here in Washington, sir.

Senator **GLENN**. More than you would like, I am sure. [Laughter.]

General GORMAN. I would comment, Mr. Chairman, that in my 20 months as commander in chief down there, I have traveled 270,000 miles, most of it running back and forth between my headquarters and the seat of government for the purpose of getting the latest nuances in U.S. policy, or in many instances directly contributing to the formulation of those shifts of which you make mention.

I think, if I may say so, that there has been a remarkable consistency in policy. Yes, tactical shifts and changes and greater emphasis on this and that or the other aspect of our policy, but by and large, if you go back to 1983 when I went down there and looked at the instructions I received at that point in time—and I did that just the other day—I think that you would agree that there has been remarkable continuity in what we have been doing.

I understand all of the controversy that grew up around the startling appearance of U.S. engineer battalions building C-130 strips down in Central America, but I am confident my colleague here to my left would agree that that is damn good training for his engineers—they were his engineers—and damn good training for his C-130's. They were his C-130's.

And I would point out further, sir, that while I was not asked to brief the Foreign Relations Committee, reference the earlier comment about appearances before Foreign Relations, I did appear before this committee, the Senate Armed Services Committee, and gave them a rather extensive preview briefing on all of that activity in Central America before the event. And we deviated in no major way whatsoever from that briefing presented, as I recall, in July 1983.

Senator GLENN. Well, I have been concerned that as we change our policy that whatever our policy is going to be, whether we all agree with it or not, that the military assets and the commitments there match our policy changes. And that was basically what I was asking.

General GORMAN. I certainly agree, sir, that among the shortcomings of our policy that we have not articulated well what it is we are doing to the Congress of the United States.

Senator GLENN. Thank you very much.

RAPID DEPLOYMENT FORCE

General Kingston, I have been concerned about the Rapid Deployment Force, and you are more involved with that than anybody else, whatever we call it these days. We have changed names on it about three times.

But this prepositioning versus mobility has bothered me somewhat. I had a career in the Marine Corps and was very much concerned with mobility and readiness and 24-hour departures and all that kind of thing for a good part of my life. It has rather boggled my mind to think that we can preposition material over there for a major war, landbased, and in effect put the supply lines out ahead of the troops, and then expect that material to still be there after the war really starts.

I know we are into floating dumps and things like that, prepositioning all of those, and I support all that. But a couple of us visited Oman briefly just before the holidays this year, and once again we were faced with the fact that we have spent an awful lot of money in there and we have no commitment that we can even use those resources unless there is a Soviet attack. And that bothers me somewhat. We have got a third of a billion dollars or so spent in that area and no commitment that we can use the material. And there are other areas that are of concern that are shown on your map in the back of your testimony. I thought they showed very graphically the difficulties in Ethiopia and Sudan and Afghanistan, and the Iran-Iraq situation and all of that.

I would appreciate whatever comments you want to make as to what the RDF does or does not provide as a ready force.

General KINGSTON. The Rapid Deployment Joint Task Force, Senator, went out of business on January 1, 1983, when the Department of Defense formed the U.S. Central Command. As the commander of the Rapid Deployment Joint Task Force, I had command of those forces, and now I have those forces and some additiomal forces available for planning.

However, what the pre-positioning does for my forces, is that they are pre-positioned in areas adjacent to or near ports or airports. The ammunition that I have on pre-positioned ships today is equivalent to 6,200 C–141 equivalents.

I have no forces available in the area. My components do not have headquarters or forces available in the area. I do not have an intelligence communications nor a logistics infrastructure like the European Command and the Pacific Command have. I do not have access other than pre-positioning in seven countries that I mentioned. If we have to go on large-scale contingency, I have to take everything up front. We have limited strategic transportation assets. That is the reason for the requirement to pre-position those types of things up forward.

If I could have access to additional pre-positioning, I would welcome it in certain countries. There are certain countries that obviously for many reasons we would not want to put a lot of assets into. We exercise our joint forces, the Bright Star series and other exercises, with the countries in the area. We get them used to accepting our aircraft, accepting our ships, accepting our personnel into their ports and into their airfields and working with them—connectivity and command and control and that type of business.

But as far as the commitments we have, we have certain commitments with each country, and of course, if they disagree, as it stands today, with the United States' use of force, probably they will not allow us to use their airfields or their ports for staging bases, and therefore, we will not have access to that equipment in some cases.

In most cases I believe we will have access to it, and I think that before we are committed we must be invited by one of the regional states. Additionally I think that the other regional states will recognize what that commitment and that invitation has been for.

Senator GLENN. Thank you, General. I know my time is up. Just let me say one more thing.

I think your command is one of the most important in the world. We concentrate on NATO and sometimes other areas here. But your command to a large extent controls the flow of much of the world's energy supply out of the Persian Gulf. It is an area of great instability. We have tried to get NATO, so far unsuccessfully, to take a greater load so we can make more commitments there.

One of the things I did a couple of years ago was to go on the Senate floor and try to get an additional $60 million in steaming time money, so that we could keep two carrier task forces out there instead of limiting it to just one.

And I think your command is in one of the most important areas of the world. Because of what comes out of that area for Japan and Europe, it is absolutely vital, and so I hope you will keep us informed any time you see some real shortages there.

The Chairman offered to hear privately any suggestions that General Gorman had. I would offer you the same opportunity, and I am sure the rest of the committee would welcome that.

Thank you, Mr. Chairman.

General **KINGSTON**. It does remain an interesting command, Senator.

Senator **GLENN**. Interesting is an understatement.

Chairman **GOLDWATER**. Senator Warner.

Senator **WARNER**. Thank you, Mr. Chairman.

Mr. Chairman, following earlier comments about members of the JCS and the CINC's testifying before the Foreign Relations Committee, you know this is a subject on which you and I have shared thoughts, and I think the Chairman and Senator Lugar might well work out an arrangement in the near future that would enable members of the JCS and perhaps the CINC's to testify before the Foreign Relations Committee. I think that would be a very, very significant advancement here in the Senate.

HEADQUARTERS OF U.S. CENTRAL COMMAND

Following the line of Senator Glenn's questions, and I certainly share his sentiments about the importance, General Kingston, of your command, and that brings up the question about the location of your command presently at MacDill Air Force Base. I am sure you and your predecessors and others have thought about the option of moving it to a location within your sphere of jurisdiction. Is that a subject that is still being discussed, and what views might you wish to share with this committee?

General **KINGSTON**. The location at MacDill was chosen because the Rapid Deployment Force initially was assigned under the commander of the U.S. Readiness Command which is co-located at MacDill where I am. Then we became the Rapid Deployment Joint Task Force in August or in October of 1981, and on the first of January 1983 we became the U.S. Central Command.

During that transition from a Rapid Deployment Joint Task Force to the U.S. Central Command, the headquarters, when I got there, and I took over from Gen. P.X. Kelley in July 1981—had 265 people in it. I knew them by their names, at least their last names if not their first names in October when we became a Rapid Deployment Joint Task Force. Over the next year and a half or so we had been built up to a sizable headquarters for worldwide commitment, especially focusing on the 19 countries and the Persian Gulf and Red Sea that we now have.

When it became a directive that we become a unified command, I lost that worldwide responsibility for Rapid Deployment Joint Task Force, and we settled down to concentrating into the central area. There was no thought to my knowledge of transferring the location of that command out of MacDill at that time. We had people who had just arrived with families. It may be the logistical and financial tail wagging the tactical and strategic dog, I am not sure, but the decision was made. We built a new headquarters, and on December 31, 1983, I had a forward headquarters established and activated aboard my command ship in the Persian Gulf, and it's co-located with the Commander of the Middle East Force, who is a Navy rear admiral. I have a small command element out there, not reporting through the Commander of the Middle East Force nor my naval component commander, who is located in Hawaii, who Commander Middle East Force reports to. He reports directly to me as do the security assistance personnel throughout the 14 countries in that area.

I have been offered a land-based forward headquarters element, and that is all we intend to ever base in that area, in one country. The country is not really suitable for the great percentage of my missions in that area, and I have rejected that kind offer. We will continue the Middle East Force and forward headquarters elements.

Senator **Warner**. So at the present time there are no plans for relocation? All right.

SANDINISTA FREEDOM FIGHTERS

Now, General Gorman, you covered this morning in various ways your concerns over the assistance that this nation is providing the anti-Sandinista forces. Let me just rephrase the question to make sure that you have had adequate opportunity to provide this committee with your views.

I would revise it by saying if we were to cut off the aid to the anti-Sandinista Freedom Fighters, what would be your prediction as to the consequences?

General **Gorman**. Let me state that I have no direct information concerning the Freedom Fighters upon which to base my reply. The information is provided through other agencies that are more directly in contact with them. I do, however, talk with Hondurans and Costa Ricans who are talking directly to them, so that in that sense I do have, in effect, independent verification, if you will, of our own reports and assessments.

Despite the fact that decisions were taken here in Washington to cut off U.S. assistance, and that led, based on what I understand of the situation, to a very severe blow to the capabilities of the Freedom Fighters to operate well inside of Nicaragua, particularly in that they have been hampered logistically.

Nonetheless, the fact of the matter is that the fighting has intensified, and the fact of the matter is that the movement has grown, and it has grown significantly over the last several months. The numbers of recruits available in Costa Rica and in Honduras I am told exceed the capacity of the local representatives of the Freedom Fighters to arm or train them. The numbers of recruits inside of

Nicaragua are even larger, and they greatly outstrip their capabilities to organize them.

I have heard statements from both our own sources and Hondurans and Costa Ricans to the effect that if support were forthcoming, the movements could readily field half again as many fighters in the next several months.

What is more remarkable about all of this, looking at it now as an outside observer of an unconventional warfare campaign, is that this movement really did not get started until 1983. There were isolated acts of sabotage in 1982, and there were cross-border raids by the FDN in particular in that year. But in terms of unconventional warfare—that is to say, the establishment of controlled resistance areas and guerrilla warfare—that is a relatively new phenomena, and the fact that it has been implanted and is able to grow despite the lack of U.S. support is an indication that there really are substantial wellsprings of resentment and antipathy in Nicaragua upon which to build such a movement.

If my sources can be credited, however, what they have been able—what the Freedom Fighters have been able to gather up from their various sources around the world is at its limit right now. They do not see any more additional help coming in. And since they are marginally able to maintain what they have got, I suspect, in knowing the dynamics of movements like this that the campaign will soon begin to peter out and wear down.

The nature of the beast is that if you are willing to be a guerrilla, you join what you think is the winning cause. You are laying your life on the line; if you sign up with one of these FDN or ARDE groups, you put your family at hazard. There is a great deal of danger or risk entailed in this for any Nicaraguan who signs on or associates himself with the Freedom Fighters, let alone put on their uniform and carry one of their guns. Not lightly to be undertaken.

But again the facts are that the movement has grown absent assurance of U.S. support. I would think, however, that unless new help can be found, the presumption would grow that this is not a winning cause, and the numbers will begin to fritter away, or worse, to take the Honduran worst fear, that they will decamp into Honduras with their families and go into exile.

CHEMICAL WEAPONRY

Senator **Warner**. One last quick question, Mr. Chairman, and I do not wish to invade others' time, so the answer could be for the record. But we are going to have as a committee extensive hearings on the question of chemical weaponry, and I wondered if General Kingston might provide very briefly now his views on the necessity to go forward with such a program, and then supplement his response for the record.

General **Kingston**. We have problems, and I will just go over them lightly. A lot of the area we have is sometimes 130 degrees Farenheit with blowing winds and high humidity. Our current equipment is next to useless in that environment. We are up against potential enemies that either have used chemical weapons in the area, or reportedly have used it, while they have used it in other areas, and we know that if they feel that they can use it to their advantage, probably would use it in the future.

Senator **Warner**. And therefore, probably the best deterrent would be an offensive capability to respond?

Thank you very much.

Chairman **Goldwater**. Senator Kennedy.

Senator **Kennedy**. Thank you, Mr. Chairman.

I want to also pay tribute to General Gorman for a long and illustrious career, and welcome back to the committee.

General Kingston, I have had an opportunity myself to visit the MacDill center which you command and found it extremely valuable and helpful to me in understanding your mission.

VIOLENCE IN EL SALVADOR

General Gorman, yesterday in the newspapers' reference to the violence in El Salvador there is a story about the increasing activities of death squads again; and I was just wondering if you could bring us up to date about whether you saw the story and whether that is accurate?

General **Gorman**. I did not see the story to which you make reference, but there is no doubt that there has been an increase in violence in San Salvador dating back to early December.

Senator **Kennedy**. Could you tell us the reasons for it?

General **Gorman**. I will come to that, if I may, sir. In October there were decisions taken in Managua forwarded to the field commands of the FMLN to reverse the strategy that they had been pursuing up until that time to recruit large number of fighters for their guerrilla formations, and to conduct an offensive against Duarte in the hope of pressuring him into negotiations.

The October instructions, which we have copies of, dictated that the guerrilla fronts break down into smaller units and return to forms of warfare that they had abandoned a couple of years ago, most notably resurgence of what they refer to as the urban front. And we know that from about 50 identified FMLN guerrillas in San Salvador, that number has grown to something like 500, with a number of new organizations operating inside of the city with specific missions, some of them aimed at economic targets, a number of them aimed at killing or kidnapping members of the government, some of them aimed at penetrating labor organizations—the usual sort of thing that you would expect to see. But the shootings have started again in San Salvador, and in my judgment much of the violence has been a product of this FMLN decision.

There are a lot of guns in San Salvador. You have been there, sir. You know virtually everyone is carrying a gun. And it is a relatively simple matter to arrange for some gunbearer to wreak violence for whatever purposes. If you are an estranged husband, an outraged lover, or you want to settle one debt or another, there are people around who are prepared to do your bidding.

The Salvadorans I think have made, referring now to government, considerable progress in cutting down on this kind of illegal activity, but given the stimulus from the left and given the fact that this is a political season in San Salvador, there are people both on the right and on the left who really do believe in violence as a method of settling political differences. I can readily believe, therefore, that some significant portion of that violence may be associated with the right.

I want to be clear, however, that we know of—we have no reason to believe that this is associated with government or the armed forces. And I guess what I am worried about is that when you say "increasing death squad activity," it used to be common here in Washington that that terminology implied some kind of systematic, but undercover operation by the government or leaders in the government. We have no reason to believe that that now is the case. I would regard what is going on there as wildcat activity on the right and the left. It is certainly deplored by President Duarte and his leadership.

NICARAGUA

Senator KENNEDY. Moving to Nicaragua, could you give us an evaluation of the Contras' military capability right now?

General GORMAN. They have about 16,000 men under arms. The principal coherent fighting force is that of the Nicaraguan Democractic Force, the FDN, which in turn is one of the three fighter groups that are generally affiliated or grouped under the Nicaraguan Unity for Reconciliation (UNIR). The other two, Miskito, Sumo, and Rama Indians, or Misura, Misura have about 5,000 fighters, and then the Misurasata, the Miskito, Sumo and Rama Sandinista unity group have about 300 fighters. So that UNIR group constitutes the real fighting capability.

Senator KENNEDY. Is there any reasonable likelihood that this military force can defeat the military force in Nicaragua?

General GORMAN. Not in the foreseeable future.

Senator KENNEDY. And can you tell us how effective this force has been in interdicting supplies to El Salvador?

General GORMAN. My Salvadoran colleagues—and I refer here to all of the military and political leaders of Salvador —are entirely convinced that if it were not for the Sandinista opposition, the Freedom Fighters, they, the Salvadorans, would have significantly increased military problems. The Freedom Fighters have drawn off the energies of the Sandinistas, and have diverted one heck of a lot of money. And you have to understand, as I think we have discussed in the past, that the Salvadoran revolution, referring to the FMLN, is a cash and carry operation. It operates on money. And in the past year the amount of money flowing from Nicaragua to support—and from other sources—to support the FMLN has been severely attenuated. And I attribute that to a major diversion of Sandinista attention.

Now, I think that we as a government were probably wrong in using the word "interdiction" with this body, because interdiction to me as a military man implies some sort of physical estoppel or blocking. That has not happened. But I think that this diversion, strategic diversion, if you will, assuredly has occurred. And I will tell you that whatever you have invested in those 16,000 fighters, you are getting more than your money's worth. It is a lot more expensive to do it other ways, if you have to support Honduras and Costa Rica to cope with the Nicaraguans on their own.

Senator **Kennedy**. But with regard to the equipment itself, as I understand, your response is that the effects relate to a general impact on El Salvador. That is what has been the report, as I gather from the response to you. But in terms of being able to halt or stop the supply routes for the insurgents in El Salvador, that has not resulted.

General **Gorman**. I know of no reason to believe, sir, that that is the case.

SAUDI ARABIA

Senator **Kennedy**. General Kingston, could you give the committee an assessment of the Saudi needs for additional U.S. military equipment and outline any plans the administration has for additional sales?

General **Kingston**. As you know, there is a relook going on right now in military sales by the State Department and other agencies in my area. I cannot comment on that study because I am not privy to it at this time.

Senator **Kennedy**. Well, could you give us your own assessment as to what their needs might be?

General **Kingston**. Again, they vary by country.

Senator **Kennedy**. I am talking about Saudi Arabia now.

General **Kingston**. I thought you might be, Senator. I believe they will come in for sophisticated aircraft. They have already been sold some sophisticated aircraft. We have operating aircraft over there now under my command until they can get their own. They will be coming in for sophisticated fighter aircraft, sophisticated weaponry to go with that aircraft, and the command and control mechanisms to control it. They are now building sophisticated command and control for all of their military organizations.

Senator **Kennedy**. My time is up. I, too, would like to submit some questions for the record.

Senator **Nunn** [presiding]. Senator Levin, I believe you are next.

Senator **Levin**. Thank you, Senator Nunn.

I want to add my good wishes to General Gorman. I wish you all the best on your retirement. I know your successor, and I have had a chance to meet him, and I know you rest comfortably with him, as all of us do, at least those who have had a chance to meet him. And I also want to welcome General Kingston.

CONTADORA INITIATIVE

General Gorman, you have indicated that you are a supporter of the Contadora initiative. Do those countries support our military assistance to the anti-Sandinistas?

General **Gorman**. I want to be very careful in an open session that I do not create more problems for Secretary Shultz in doing his difficult job. But I would tell you that I have met with all of the leaders of the Contadora countries with the exception, sir, of Mexico. My dialog with them has been through attaches.

Senator **Levin**. We are going to have to patch up that relationship. [Laughter.]

General **Gorman**. That is Jack Galvin's major charge. [Laughter.]

But with respect to the other members of the Contadora group per se, and certainly with respect to the leadership of the core Central American neighbors of Nicaragua, the core four, they are unanimous in telling me that we should continue to provide incentives.

Now, some of them are more explicit than others, but it is crystal clear in our conversations that the incentives are of two general types. One is the U.S. direct pressures—military, economic or whatever—on Nicaragua. And the other are the pressures engendered by the domestic opposition in Nicaragua. And they are very clear with me in such conversations that there would be no Contadora process were it not for the incentives bearings on the Sandinistas to solve their problems.

They all profess to be in one sense or another experts on revolutionary movements. Most of them are avowed revolutionaries themselves, and they are very clear that left alone the Sandinistas will press ahead into another Cuba.

Senator LEVIN. Have they made any public statements, those four governments, supporting our aid?

General GORMAN. Their confidential remarks are, as you can imagine, prefaced by a statement that of course, I cannot say this in public without sabotaging the process; but you should understand, General, and please, et cetera, et cetera.

Senator LEVIN. Have any of them made any public statements saying they support the anti-Sandinista effort?

General GORMAN. Not among Venezuela, Colombia, Panama, and Mexico, no. They have been very careful to avoid that.

Senator NUNN. Senator Levin, would you yield without losing any time?

Senator LEVIN. Oh, yes.

Senator NUNN. I want to try to pin General Gorman's view down a little bit on this subject, not that you have evaded it; you never do. But we are struggling with this question now, and not just here but in the Intelligence Committee. You have made a key point, that it never should have been described as an interdiction effort. That is not in reality what it is in a direct sense, but instead indirectly. I think your point is valid. I agree with it. Indirectly I think it has had an effect.

General GORMAN. Sir, you will recall a hearing at which you and I went around and around on that word, and I said in terms of military definition, the word does not apply.

Senator NUNN. And that is the key. Of course, in the Intelligence Committee that has been one of the things we have talked about a great deal from the very beginning, although I was not there at the very beginning.

Now the other question is overthrow. We have a word that does not really apply practically. Overthrow is another word that has been used over and over again. This government has said, to the Congress at least, that was not our goal. I know we cannot control the goals of other people.

The other new twist we have now, that is somewhere in between those, is crying uncle. We have interdiction, which is not applicable; overthrow which has been disavowed, although recently perhaps amended by the Secretary of State and the President; and now we have another goal here called crying uncle.

Could you give us something that those of us in Congress who are inclined to support this could hang our hats on, in terms of a realistic goal, expressed in terms that ordinary people can understand?

General **Gorman**. Well, let me seize on Senator Levin's question and tell you that the leaders of the Core Four that I have had discussions with on this subject have stated unanimously that they cannot live with a Marxist-Leninist garrison state in their midst. That must change.

Now, when you go on and ask the question you have just asked me, their response is that the Sandinistas started out with a pluralistic leadership and that if they would return to a pluralistic leadership, if they would agree to a removal of the foreign presence and the demilitarization of the region, they, the Core Four, could live with the Nicaraguans. But they cannot live with them as a Marxist-Leninist garrison state. And they will then usually go on to say if that means the Sandinistas must be removed, then so be it.

Now, the closer you get to Nicaragua, the more definite, the more assertive those statements become. And you would hear much more clearly that kind of a message from a Costa Rican or a Honduran leader than you would from a Panamanian or a Venezuelan certainly.

Nonetheless, somewhere between changing their present way of doing business and overthrow—forceful overthrow I guess is what is implied there—it seems to me is where realism lies. As I commented earlier, I do not see any immediate prospect that these guys in blue suits in the hills are going to march into Managua. It seems to me that the whole resistance movement has another year or more of slogging to go before that were ever in prospect, and a lot of violence associated with it.

I think that, therefore, as I indicated earlier, the answer lies in some kind of combination of pressures plus diplomacy, and I believe the formulae that we have been reaching for in Contadora are an adequate basis for proceeding. They are the only ones that I think realistically the people in the region would live with.

And we ought to also be clear, sir, that whether or not the United States supports the Sandinista opposition, opposition there will be. The question is really how much is going to be in country and how much is going to be out of country.

You may be aware that just within the past 2 weeks the Ortegas announced that they are going to apply conscription to all males through age 30, and almost immediately the number of Nicaraguan males coming across the border into Costa Rica and Honduras went up and went up dramatically. The Panamanians told me the other night they are beginning to see them in northern Panama.

So out of that somewhere in there is where the truth lies. And I would argue that you build your policy on what is possible. I do not think overthrow is feasible in the near future.

Senator **Nunn**. Thank you.

Senator Levin, I apologize for interrupting.

ANTI-SANDINISTA GROUPS

Senator **Levin**. You have indicated there are a number of forces that are in the anti-Sandinista groups. Do some of them have as their objective the overthrow of the Sandinista government?

General **Gorman**. There is no question, sir. Most of these folks, as I understand it from talking to Hondurans and Costa Ricans, are uneducated campesinos. Most of them cannot read. I think the only people that have used the manuals that were produced for them effectively are Members of this body. [Laughter.]

These are people who have given their lives for a cause, and I think they think that cause is the downfall of the Sandinista government.

Senator **Levin**. So while it is not our goal to overthrow that government, it is your belief that we should assist groups whose goal it is to overthrow that government?

General **Gorman**. I believe that we should assist men who are fighting for freedom.

Senator **Levin**. And the way they define it is overthrowing that government.

General **Gorman**. Right.

Senator **Levin**. And interdiction is—is not our purpose we are not achieving any of that in terms of arms, as I gather from what you said here this morning?

General **Gorman**. In the miltary sense there is no physical estoppel of the movement of arms occasioned by the operations of the Sandinista opposition.

Senator **Levin**. Are we in any way, by the way, assisting or supporting the anti-Sandinistas?

General **Gorman**. To the best of my knowledge and belief, sir, we are not. Certainly the U.S. Southern Command is not. One thing that I am not involved in, Senator Levin, is a secret war.

Senator **Levin**. So to the best of your knowledge, we are not in any way assisting the anti-Sandinista groups?

General **Gorman**. I know of no way that the U.S. Government or any of its arms agencies, or appurtenances are engaged in such activities.

Senator **Levin**. Are people that we contract with or assist?

General **Gorman**. I am confident, given my own sources, that if that were going on, I would know it.

Senator **Levin**. And you do not know of any?

General **Gorman**. So I assume that it is not.

Senator **Levin**. Now, there have been many newspaper articles about it, and we might as well clear the air. One reads articles from time to time saying we are giving assistance in various ways, and that has been described in various articles, and you have given your assurance that at least you know of none—of giving assistance—and that if any were going on, that you would know of it, you believe. So that is good enough for me, and I hope that puts that matter at least in some clearer light.

JOSEF MENGELE, NAZI WAR CRIMINAL

A number of questions have been raised on a wholly unrelated matter, but which is physically in your command area about the

Nazi war criminal Dr. Josef Mengele, living in Paraguay. I wonder if you have any knowledge of his presence there in the last few years?

General GORMAN. I do not, sir. I have a very small military group in Paraguay, and none of the reporting that I have seen out of the military group or out of any of the other agencies in Paraguay have dealt with that subject.

Senator LEVIN. I have a number of questions for General Kingston, if I have a moment.

RAS BANAS, EGYPT

Are we pre-positioning equipment at Ras Banas in Egypt now?

General KINGSTON. We are not.

Senator LEVIN. I know we are in open session, and I do not want to ask anything that you cannot answer.

General KINGSTON. We are not.

Senator LEVIN. How many ships have been hit in the Persian Gulf during the Iran-Iraq war?

General KINGSTON. Fifty-seven as of February 19.

Senator LEVIN. And how many have sunk?

General KINGSTON. Three to my knowledge.

Senator LEVIN. What is the reason for the small number of ships being sunk?

General KINGSTON. Both Iran and Iraq have used missiles to attack shipping. We believe that they are choosing their targets carefully.

Senator LEVIN. Why would that be the case?

General KINGSTON. There could possibly be several reasons, but that would be personal conjecture on my part.

Senator LEVIN. In other words, what you are saying, it is possible the countries that are firing these missiles do not want to sink the ships?

General KINGSTON. That is possible. Since both countries use international merchant shipping, the sinking of large numbers of tankers may not be perceived by either country as being in its best interest. Some of the missiles are not capable of sinking some of those ships they have hit.

STATUS OF IRAQ/IRAN WAR

Senator LEVIN. What can you tell us about the status of the Iraq-Iran war and how does that war affect our security in terms of its outcome?

General KINGSTON. Again, in an open session, I would say that to me it looks like Iran is unwilling to negotiate or the negotiation terms they have set down are so unrealistic and unacceptable to Iraq that it will probably continue with limited attacks on both sides. As a ground war it is almost a stalemate. I think the recent increased use of the Iraqi air force is indicative of the stalemate situation of the ground war, and they have moved it down into the gulf, into the so-called tanker war. They, of course, are using this against Iran's economy to try and pressure, try and stop or at least control some of the flow of oil from Kharg Island. Of course, they have pushed Iran into other means to get that oil itself.

Both countries have the capability to continue the ground war like it is going. If the tanker war continues, it could have ramifications affecting more than just those two countries.

Senator LEVIN. Thank you. My time is up.

Chairman GOLDWATER [presiding]. Senator Exon, do you have any questions?

Senator EXON. Yes. Thank you, Mr. Chairman.

EL SALVADOR

General Gorman, let me get back to the situation in El Salvador. We hear a lot of conflicting conjecture today as to what the situation is down there. Some say that the guerrillas in El Salvador are slowly losing the battle and eventually they will be a force not seriously to be reckoned with, and others claim that even if there is no decisive military victory over the guerrillas, they would be a force that would cause a great deal of difficulty and instability in the region.

Can you clarify for me what your view is on the El Salvador military situation today and what you might project or expect it to be a year or two years from now?

General GORMAN. One word that has frequently been applied to the situation there in the past that no longer accurately describes what is going on is stalemate. I indicated earlier there has been a good deal of dynamism evident in El Salvador in the past year, and let me begin by taking you back just 1 year ago. About the time that I testified here last February, we were looking at an FMLN force that had dared to form itself into brigade sized organizations for the purposes of conducting what amounted to conventional military operations, large scale attacks against Salvadoran Government units in the field, very successful in the fall of 1983, or against government installations, the attack of the garrison of the Fourth Brigade at El Paraiso on the 30th of December of 1983, and then the subsequent destruction of the Cuscatlan Bridge over New Years.

In these battles, the guerrillas won, and won handily. The Government response was wholly inadequate. They lost a lot of people killed, wounded, a lot of weapons captured, et cetera.

At that point in time you were looking at perhaps 30,000 Salvadoran Government troops facing an FMLN of somewhere between 9,000 and 11,000, and the word stalemate I think was a reasonable representation of what was going on.

There has been a dramatic change in the past year. The guerrillas can no longer mass in that sense, and they know it. And they have given orders to their subordinate organizations to break up into smaller units, to revert to classic guerrilla warfare, harassment, mining, roadblocks, etc. to renew urban warfare, meaning terrorism, and to move forces out of the vaunted conflicted areas where a year ago they claimed that they were virtually the Government, but to move forces out of there into the heretofore pacified areas of the country, particularly the western portions of the country, all of this indicating to us a significant reappraisal of their prospects for imminent victory.

They are gearing for the long haul, and they feel particularly inhibited, I should add, both by the cutbacks, or slowdown in funds reaching them from abroad, and by the political successes enjoyed by the Duarte government, particularly abroad, in Europe, where theretofore they had gotten a lot of sustenance.

On the government side of the equation, they not only have more forces in the field (there is now a force structure about 40,000), but also whereas last year there was a garrison mentality and a defensive minded leadership, very poor use of central reserves, and certainly a lack of confidence and planning, there is now the antithesis. Today these people think ahead. They have satisfactorily acted on intelligence, much of it their own, incidentally, anticipated guerrilla operations, taken the battle to the guerrillas, and in it, the leadership has directly participated. In the last pitched battle in the 6th through the 9th of January at a place called San Bartolo Ichanmico, the chief of the joint staff went to the field and took conmand of the forces in the field, and I think that is probably the first time in the history of El Salvador that any senior left the capital like that to take command in the field.

I would tell you that you are looking at an armed force this year that is substantially more capable than it was just a year ago.

INTERRUPTION OF SUPPORT FROM NICARAGUA

Senator Exon. And may I ask, if there has been, for whatever reason, an interruption of the flow of support from Nicaragua into that area?

General Gorman. It has certainly made it a heck of a lot more difficult for that to occur.

I have got here just a quick wrap-up of events in Salvador from February 18 through 22, and if I may, just let me draw on that paper.

In the past several months, I would say perhaps as early as 6 months ago, but certainly 4 months ago, I think the El Salvadorans went from reacting to information that infiltration was under way, to anticipating it, and whether this has been as a result of the urgings that we have made to them in this respect, or whether they are doing it because Senor Duarte, the President of the Republic, has told them that he wants to stop that— and I know that to be the case—or whether this simply represents another reflection of their growing professionalism, the fact of the matter was that they did anticipate correctly that some time around the 20th of the month there would be one of these cross beach operations in the vicinity of Jucaran, down in the center of the country, and probably because from their own sources there, they were able to deploy forces and got into a fight with a guerrilla group that was down there to safeguard this movement. I don't think that they stopped the entire shipment, but I do think that they scared off a good part of it, and I think that that reflects the pattern that we have been observing from the outside. They are interrupting it. They are making it more difficult for the guerrillas to move supplies, and move units around. They are certainly making it more difficult for the guerrillas to support large units massed together.

And all of this is a reflection of their increasing activity and their increasingly efficient intelligence.

So I would tell you that they are doing very well. This is the dry season, Senator Exon, and in the dry season the guerrillas make much broader use of overland infiltration as well, and again, in this past week, on the 20th, the Salvadorans sent one of the U.S. trained battalions, the ARCE battalion, which was trained at the Regional Military Training Center, into a guerrilla base area up close to the Honduran border there to dismantle four guerrilla base camps, capturing not a significant amount of supplies but enough to indicate that they were on the money in putting them in there at that time.

Senator EXON. One last question, Mr. Chairman, if I might.

CONCERN OVER MIG'S

Last year at election time there was an announcement that we thought Mig fighters were being delivered into Nicaragua. At that time I said that I felt that if Mig's were going into Nicaragua, that would be destabilizing to the area and that I hoped that we would move with whatever projection of force was necessary, to see that that did not happen. I feel very strongly about that.

Now, what can you say for the record, first, on what action could have been taken or would have been taken? And second, since it seems that that was a false rumor put out since Mig's have evidently not arrived, what could you do to clarify the false information that came out at that time? How adequate is our intelligence capability in this part of the world?

General GORMAN. Well, let me take those points in reverse order.

DESTABILIZATION

On the destabilization of the area, I would tell you what the Costa Ricans and the Hondurans tell me, that they are far more concerned about MI-25 armored HIND helicopters than they are about Mig's, and they ought to be. They understand in spades that the Mig's don't pose as direct a threat to them as do those helicopters. They have seen the television footage from Afghanistan and so forth. And so in that respect, I would say the destabilization of the region is well under way.

I believe myself that the movement in there of high performance aircraft like the Mig's would in fact be an event of which the United States would have to take strategic notice. There is no question about it.

The second point I would like to make concerns the adequacy of the information at our disposal. I would not want to comment at length in open session, for reasons that are obvious to you. But I would tell you that all of the concern that was manifested here about those Mig's was entirely well taken. We really did have reason to be concerned, and I will be glad to go into that in some depth with you in another forum.

I do not know to this day whether those deliveries took place or not. I have plenty of sources in the region that keep assuring me that the Mig's are already there, and that we cannot see them. We do know from what we can see that they are making preparations for the reception of some kind of an advanced aircraft of the sort that the Mig represents. The airfield that they are building north of Managua at Punta Huete has revetments that are identical to those that we see in the airfields in Cuba that do house Mig's.

So our inference is they are getting ready for some kind of an event of that sort. The construction on that airfield has not proceeded as rapidly as I had predicted with this committee last year, but they have got about 10,000 feet of runway completed, which is more than adequate for fighter operations, and these fighter revetments and ready areas are sitting there now complete. The fueling facilities are being finished up, and they are putting in the antiaircraft weaponry around the airfield.

It is interesting to note that in the past year they have begun to practice ground controlled intercept with their radar, exactly the sort of thing, using the same techniques that we see the Cubans practicing with their Mig's in Cuba. They don't have an aircraft that could hope to be used for GCI absent the arrival of something new.

So the evidence is still there. They continue to signal to us that something is coming in.

Senator **Exon**. Are you telling me that from our surveilance and from our sources of information on the ground that are considerable in Nicaragua, that we do not know whether there are Mig's in Nicaragua at this time or not?

General **Gorman**. I have no firm information that would lead me to believe that Mig's are there.

Senator **Exon**. So you think they are not there?

General **Gorman**. I believe they are not there.

Senator **Exon**. Thank you.

General **Gorman**. I cannot produce information that would confirm the opposite.

Chairman **Goldwater**. I do have some questions for you, General Gorman, that I will submit and you can answer for the record.

KHARG ISLAND

General Kingston, if I were in command of the Iraq forces, I would be sorely tempted to attack Kharg Island.

Why in your opinion haven't the Iraqi forces attacked Kharg Island, or even more, the two supply lines flowing from Iran are not at a great depth, I think around 100 feet, and I wondered why the island has not been attacked or the supply lines have not been mined.

General **Kingston**. The island, Mr. Chairman, has been attacked, not in any great repetitive flights. They have some protective mechanisms around them other than physical. They have passive protective measures that have worked, and so much so that they are using other means now to get the oil distributed from Kharg Island without tying up a great percentage of the tankers at Kharg Island.

I would be glad to go into that in closed session.

Chairman **Goldwater**. If you feel that should be classified, you could answer it to me in a classified way.

And again, if this answer would require a classified answer, you need not answer it.

CHEMICAL PLANT IN IRAQ

Have we had any recent evidence of an increase in the productivity of the chemical plant in Iraq?

General KINGSTON. I would have to answer that in closed session, sir.

Chairman GOLDWATER. All right, thank you.

You are getting to where I cannot ask you much.

General KINGSTON. I do not mean to be evasive, sir.

Chairman GOLDWATER. One final question:

MORATORIUM ON ARMS SALES TO MIDDLE EAST

The administration has announced a moratorium on arms sales to the Middle East until a policy review is completed.

THREATS FACING SAUDI ARABIA AND JORDAN

Now, in your opinion, what are the key military threats moderate Arab nations such as Saudi Arabia and Jordan face, and how could the United States arms sales help our friends in the region?

General KINGSTON. I would like to take Jordan first, if I may.

Jordan's biggest threat now is Syria, for many reasons, historical, and the Syrians do not wish the Jordanians and Palestinians to get into the peace process. And I can again in closed session elaborate more on that.

The biggest threat to Saudi Arabia in the recent past has been the crossing of the fire line by Iranian F-4's. They are very concerned that the spillover of the Iraq-Iran war could come south, and are very concerned about internal problems with some of the fundamentalists coming in or within their country. Other than that, I would have to answer further in closed session.

Chairman GOLDWATER. Thank you very much. I was afraid of that.

Before I finish, I would like to have placed in the record a resumé of the service career of Paul Francis Gorman, who I honestly believe is one of the finest general officers I have ever known in a lifetime of knowing general officers.

[The information follows:]

RESUMÉ OF SERVICE CAREER OF PAUL FRANCIS GORMAN, GENERAL

Date and Place of Birth: 25 August 1927, Syracuse, New York.

Years of Active Commissioned Service: Over 32.

Present Assignment: Commander in Chief, United States Southern Command, Quarry Heights, Panama, APO Miami 34002, since May 1983.

Military Schools Attended: United States Marine Corps School—Junior Officers' Course; United States Army Command and General Staff College; National War College.

Educational Degrees: United States Military Academy—BS Degree, Military Science; Harvard University—MPA Degree, Public Administration.

RECENT MAJOR DUTY ASSIGNMENTS

From Sep 1968 to June 1970: Member, United Stated Delegation Staff, United States/Republic of Vietnam Peace Negotiations, Paris, France.

From Aug 1970 to Aug 1971: Commander, 1st Brigade, 101st Airborne Division (Airmobile), Vietnam.
From Sep 1971 to July 1972: Assistant Commandant, United States Army Infantry School, Fort Benning, Georgia.
From Aug 1972 to Sep 1973: Assistant Division Commander, 4th Infantry Division (Mechanized), Fort Carson, Colorado.
From Oct 1973 to July 1977: Deputy Chief of Staff for Training, United States Army Training and Doctrine Command, Fort Monroe, Virginia.
From July 1977 to Apr 1979: Commanding General, 8th Infantry Division (Mechanized), United States Army Europe.
From Apr 1979 to May 1980: National Intelligence Officer for General Purpose Forces, Central Intelligence Agency, Washington, DC.
From July 1980 to July 1981: Director, Plans and Policy Directorate, J-5, Organization of the Joint Chiefs of Staff, Washington, DC.
From Jul 1981 to May 1983: Assistant to the Chairman of the Joint Chiefs of Staff, Organization of the Joint Chiefs of Staff, Washington, DC.

Promotions	Dates of appointment	
	Temporary	Permanent
2d Lieutenant		June 2, 1950.
1st Lieutenant	Oct. 12, 1951	June 2, 1953.
Captain	Oct. 12, 1954	June 3, 1957.
Major	June 25, 1959	June 2, 1964.
Lieutenant Colonel	July 30, 1963	June 2, 1971.
Colonel	Aug. 16, 1968	June 2, 1975.
Brigadier General	May 1, 1972	Aug. 16, 1976.
Major General	Jan. 1, 1975	June 1, 1979.
Lieutenant General	July 1, 1980	
General	May 25, 1983	

U.S. Decorations and Badges: Distinguished Service Cross, Silver Star, Legion of Merit (with 4 Oak Leaf Clusters), Distinguished Flying Cross, Bronze Star Medal with V Device (with 3 Oak Leaf Clusters), Air Medals, Army Commendation Medal (with 2 Oak Leaf Clusters), Navy Commendation Medal, National Intelligence Distinguished Service Medal, Purple Heart, Combat Infantryman Badge (2d Award), Senior Parachutist Badge.

Source of Commission: USMA.

Chairman GOLDWATER. We are going to miss you, and if you think you can hide from us, you're crazy. We'll find you. [General laughter.]

Sam, do you have anything more?

Senator NUNN. One question for General Kingston.

SAUDI AWACS

General Kingston, we had considerable debate about the Saudi AWACS sale a couple of years ago. One of the provisions that came out of that debate, deliberation and dialog with the administration was the provision that said that the Saudis would share their AWACS data with us "completely and continuously." That was an assurance we got from the President.

Is your command in the process of, or do you have any responsibility for, negotiating the details of that presidential commitment?

General KINGSTON. My command does not have the negotiating responsibility for that, sir.

Senator NUNN. Who is doing that?

General KINGSTON. Probably the State Department.

Senator NUNN. Are they keeping you informed?

General KINGSTON. It is a little bit early because the delivery is not due until 1986, but we are kept abreast of the status but not the actual agreements. I am sure the command will be when they are about to be implemented or do in fact go into effect.

Senator NUNN. Thank you.

MIG SITUATION IN NICARAGUA

One question for General Gorman on the Mig Nicaragua situation that Senator Exon was pursuing.

On the intelligence part of it, how much damage was done by the announcement or leak here—I am not sure which it was—about the Mig-21 or Mig delivery over there and the fact that we were trying to determine that? How much damage was done to our ability to really tell whether the Mig's were being delivered?

General GORMAN. It is going to make it a lot more difficult in the future, there is no question about it.

READINESS

Senator NUNN. I have three questions for the record, one on readiness and how you measure readiness. We are trying to determine whether we revise some of the ratings on readiness which have been so controversial.

Also, General Kingston and General Gorman, I am going to pose a question to both of you about the effect, as you see it, of having a 3-percent growth rate in the budget rather than what is now being projected in the 5-year plan, if you assume that we fence off and give priority to strategic programs and to the strategic defense initiative.

I am particularly interested in your analysis, General Gorman, since you made such an excellent statement. I thought about the low intensity combat. I would like to get your view on that for the record, or now if you have something.

General GORMAN. You know better than I, sir, most of the moneys in the Defense program go for readiness to meet very different kinds of contingencies than I face in my command.

So the answer to your question from my perspective is that substantial reductions in the Defense budget would not impact my command, assuming that the readiness for those types of forces that I have cited in my probably overly pedantic presentation here were safeguarded. The assumption that because forces are ready for mid-intensity warfare or high-intensity warfare, they are also ready for low-intensity warfare is false. You have to build the right kind of forces and prepare for low-intensity warfare, and you have to look at the overall structure of the armed forces, and you have to be willing in our instance to permit me to draw on the capabilities of the reserve components, which I am doing.

And I am grateful for the support of this body in making that possible.

So assuming that I would have those authorities, and the sorts of considerations that I cited to you earlier were safeguarded, cutbacks in the Defense budget would not impact SOUTHCOM's readiness.

Senator NUNN. I will put the rest of these questions in the record. I have one on support forces for both of you, too, and one on the effect of a 10-percent cut in support forces across the board, because that is being talked about. I would like to get that, but I will do that for the record because I know we need to get away. You have been here a long time.

I thank both of you for not only your testimony but your service to the Nation.

[Questions with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR BARRY GOLDWATER

AID TO THE CONTRAS

Chairman GOLDWATER. General Gorman, on aid to the Contras, in your view, what would be the military and political implications of maintaining the ban of U.S. assistance to the guerrillas in Nicaragua?

General GORMAN. Massive migrations from Nicaragua into Honduras and Costa Rica, and distinct turns toward neutralism in both countries. We would see a hardening of Sandinista positions in Contadora, and a tightening of their internal controls.

Chairman GOLDWATER. From the regional point of view, what would be the pros and cons of overt U.S. assistance to the Contras?

General GORMAN. The only objections would come from the Sandinistas. All those who support democracy would rejoice.

Chairman GOLDWATER. One of the main reasons the United States has given assistance to the Nicaraguan Contras is to stem the flow of arms from Nicaragua to the rebels in El Salvador.

To what extent have the Contra operations affected Nicaraguan aid to the Salvadoran guerrillas?

General GORMAN. The Freedom Fighters in Nicaragua have diverted substantial resources—funds, manpower, command attention—which otherwise would have been available to support the FMLN.

U.S. MILITARY PRESENCE IN CENTRAL AMERICA

Chairman GOLDWATER. General Gorman, over the past year, the press has reported a general increase in the U.S. military presence in Central America.

Could you briefly give the committee a sense of the numbers and types of presence the U.S. military is maintaining in and around Central America?

General GORMAN. The data in my prepared statement are as far as I believe it prudent to discuss in open session.

BIG PINE III

Chairman GOLDWATER. The Big Pine III military exercise in Central America is scheduled to begin this month.

Could you tell us the duration and scope of this exercise?

General GORMAN. Ahuas Tara III is a joint combined exercise of U.S. and Honduran forces designed to increase the readiness and interoperability of both forces for the defense against armed attack, and for operations against guerrillas within Honduras. Most exercise events will occur in March and April.

U.S. MILITARY ADVISORS IN EL SALVADOR

Chairman GOLDWATER. There have been press reports of an increased U.S. military role in behalf of the Salvadoran military, for instance, the provision of realtime intelligence to the Salvadoran military and more freedom of movement for U.S. military advisors in El Salvador.

Could you explain the role of the U.S. military in El Salvador and how that role has changed in the recent past?

General GORMAN. There has been no change in the numbers of U.S. trainers in El Salvador, and no change in their function. Press reports to the contrary are inaccurate.

NICARAGUA MILITARY BUILDUP

Chairman **Goldwater**. Could you give us a status report on the Nicaragua military buildup, especially in terms of the jet aircraft they are acquiring? Also, what is your assessment of where the Nicaraguan military is going in terms of future development?

General **Gorman**. The data I have provided, and the statements I made concerning advanced aircraft and the preparations that the Sandinistas have undertaken for advanced aircraft, indicate that the Nicaraguans are determined to establish and maintain clear military superiority in Central America. It is a military superiority which is beyond any legitimate needs for defense against their neighbors and is plainly aimed at intimidation. It also serves, as I have said, the purpose of politicizing their youth.

UNITED STATES-HONDURAS SECURITY RELATIONS

Chairman **Goldwater**. What is the status of security relations between the United States and Honduras?

General **Gorman**. Negotiations are underway in a frank and amicable fashion. Further comment is inappropriate.

Questions Submitted by Senator John Warner

AFGHAN FREEDOM FIGHTERS

Senator **Warner**. I support strongly, along with many of my colleagues, our support for the Afghan Freedom Fighters. However, the criticism has been made that our support for the Freedom Fighters has been only enough to keep them from going under—not nearly enough to give them any reasonable chance of success. Thus, according to the critics, our support would only condemn them to continued fighting, but with little hope of a successful conclusion. Would you comment on these criticisms?

General **Kingston**. Although Afghanistan falls within the United States Central Command's area of responsibility, support to Afghan Freedom Fighters does not fall within the purview of the U.S. Central Command.

TACTICAL SATELLITE COMMUNICATIONS

Senator **Warner**. On Page 10 of your statement, you mention the tactical deployable communications equipment which is becoming available and, as I understand it, would include tactical satellite communications.

I understand that there is currently a problem of compatibility between Air Force and Army tactical satellite communications equipment.

Would you comment on this problem and describe what actions are being taken to resolve it?

General **Kingston**. USCENTCOM has been aware of potential interoperability problems between Army and Air Force Ground Mobile Force satellite terminals. [deleted.] We are aware that the Services are taking corrective action to overcome this deficiency.

FORWARD POSITIONING OF SUPPLIES AND EQUIPMENT

Senator **Warner**. You mentioned in your statement some of your initiatives to persuade countries in your area of operations to permit forward positioning of supplies and equipment, to provide host nation support and to improve their own military capabilities.

While I am certain that you have personally made great efforts in this regard, the results, quite frankly, seem rather meager.

Would you provide your assessment of the willingness of the countries in this region to be of real assistance in the event of an emergency?

General **Kingston**. [Deleted.] In addition to wanting to preserve their cultural traditions, many of these countries fear that their nonaligned status will be put in jeopardy or relations with their neighbors will be complicated if they are seen as too friendly with the United States. The Arab-Israeli situation, and the close relationship of the U.S. with Israel further exacerbate the situation.

In spite of this background, many nations in the region recognize the importance of assisting the United States in the event of an emergency. In fact, several countries have demonstrated their willingness already. [deleted.]

Some of the other countries of my area have granted or have indicated willingness to grant us access rights in the event of an emergency, as well as provide us host nation support and allow the pre-positioning of supplies and equipment. Some, [deleted] are also improving their own military capabilities in coordination and cooperation with the United States.

While progress in this area may seem to be meager, it is not. Remember that the United States does not have formal alliances or treaties with these countries. The problems we face in this region will go away slowly and will require a great deal of patient effort on both sides. Compared with two years ago, the U.S. has made good progress persuading countries in my area to help the United States protect peace and stability in the region. It is my assessment that the countries of the region have been and will continue to be of real assistance in the event of an emergency.

PLANNING FORCES

Senator **Warner**. Most of the forces under your command are, in fact, "planning forces".

In your opinion, do your forces have adequate opportunities to train together?

Are you confident that these forces can be brought together to operate effectively in an emergency?

What measures would you recommend to increase the effectiveness of these "Planning Forces" under your Command?'

General **Kingston**. My analysis is that the USCENTCOM exercise program is balanced with the appropriate mix of CONUS and OCONUS exercises. This mix permits us to accomplish those objectives critical to improving the operational readiness of the participating combat forces and headquarters. Significant progress has been made in past years which provides a foundation for further development. However, future progress will be largely dependent on continued funding and political/military sponsorship because USCENTCOM does not have a large force structure which routinely works and trains in place to accomplish U.S. objectives in the region.

As you know, my command and its forces are transportation dependent with great distances to cover in order to exercise in the Central Area or other semi-arid locations. I need your support to maintain the currently planned minimums of exercise frequency and magnitude. Cuts or reductions within the exercise program would jeopardize the ability of my forces to rapidly deploy to the Central Area and operate effectively.

In response to your second question, critical capabilities such as rapid deployment, joint interoperability, command and control, intra-theater logistics, combined TACAIR and air defense are focused on in exercises and acceptable levels of capabilities have been attained. Additionally, our accelerated and extensive planning efforts, matched by plans developed by our component headquarters, gives the opportunity to identify and resolve potential problems.

Lastly, to increase the effectiveness of USCINCCENT forces, I need your support of USCENTCOM initiatives to build a supporting infrastructure within the Central Area, to include forward operating and intermediate staging bases and the establishment of effective command and control communications system networks.

U.S. SOUTHERN COMMAND

Senator **Warner**. I'd like to take this opportunity to express my appreciation and to commend you for your performance as Commander of the U.S. Southern Command.

I regret that you have decided to retire from the military. I hope that we can continue to have the benefit of your outstanding and dedicated service somewhere in the Federal Government.

I would be interested to hear your views on the termination of our assistance and support to the anti-Sandinista Freedom Fighters in Nicaragua.

Would you provide your assessment of the effects such actions have, not only in Nicaragua, but in other countries in the region?

General **Gorman**. I think that we must support those Nicaraguans who are seeking to free their country. Many people, including many North Americans, applauded the removal of Somoza in 1979, thinking that the pledges of the revolutionary government would be met. They are no longer applauding. The revolution in Nicaragua has been stolen and the people are the losers. And the people are now fighting back.

To continue to not support the Nicaraguan Freedom Fighters would be a disaster for the region, and for Honduras and Costa Rica in particular. Those countries would be immediately inundated with thousands and thousands of additional refugees; they already have more than they can handle. Neutralism would be the outcome and the Sandinistas would have a free hand to export their brand of tyranny and terrorism. It would be a major reversal for U.S. policy promoting democracy in Central America.

CONTRAS

Senator **Warner**. In your view, have the anti-Sandinista Freedom Fighters (Contras) been effective in deterring the Sandinistas from exporting insurgencies to other Central American states?

General **Gorman**. Yes. The internal pressures brought to the Sandinistas by the Freedom Fighters have been most effective in deterring the exportation of insurgency from Nicaragua. The Freedom Fighters have provided a strategic diversion to the Sandinistas who must now apply their Soviet bloc supplied resources against their own internal security problem.

Senator **Warner**. To what extent do you believe the anti-Sandinista Freedom Fighters offset the substantial military buildup in Nicaragua?

General **Gorman**. The Sandinistas now have their hands full with their internal threat and their self-induced hysteria over an imminent U.S. invasion. They have recently extended forced conscription, their single most unpopular activity to meet these threats, causing both patent resistance among their people, and wholesale migration of the youth.

HONDURAS

Senator **Warner**. There have been recent stories in the media describing some problems we might be having with one of our allies in the region, Honduras.

Would you provide us your assessment of our current relations with Honduras and what we should do to assume that we maintain the appropriate relations between our two countries?

General **Gorman**. The United States enjoys excellent relations with Honduras. The press reports to which you refer are exaggerated and conditioned by the electoral compaign which is now beginning in Honduras. The Hondurans are seriously concerned, gravely worried, about what is happening in Nicaragua. In 1979 there was a rough balance of military force in Central America. Today the preponderance of power rests with the Sandinistas. They out-man and out-gun the rest of Central America combined, with the exception of aircraft, and all evidence indicates that the air picture is soon to be altered overwhelmingly in favor of the Sandinistas.

U.S. ASSISTANCE TO CENTRAL AMERICA

Senator **Warner**. Is the quantity of U.S. assistance now being provided to Central America sufficient to support U.S. objectives?

If not, in general terms, what is required?

General **Gorman**. No. Honduras needs urgently an economic bale-out, and Guatemala needs help of all types. Full implementation of the Jackson Plan is needed to assist our closest neighbors in political, social, and economic development, while maintaining the requisite security shield.

MILITARY HOUSING PROGRAM IN PANAMA

Senator **Warner**. The MILCON request contains a build-to-lease housing program for U.S. military in Panama.

What is the reason for selection of this type of construction?

General **Gorman**. Lease, or build-to-lease, construction will provide a direct stimulus to the Panamanian housing industry, which is languishing. President Barletta has requested, and the U.S. Embassy in Panama supports, this form of helping the Panamanians help themselves.

STUDENT TRAINING IN COMMUNIST COUNTRIES

Senator **Warner**. I understand that, in Costa Rica alone, about 200 students will return from training in Communist countries this year.

Can you comment on the approximate number of Central American students now being trained in communist bloc countries and where most of these students find employment upon completion of their training?

How long has the Communist program been operating?

How does the U.S. program compare?

General GORMAN. During the mid-1950s, the Soviet Union observed the political and economic advantages accruing to the United States from training programs that exposed the potential leadership of developing countries to our technologies and the social, political, and cultural aspects of American life. Partly out of a desire to share the goodwill created through such government-sponsored training programs and partly because it needed to cultivate a cadre of individuals in the developing countries with which it could work, the Soviet Union initiated scholarship programs for developing countries. We have all seen the press reports of Soviet "scholarships" for Afghanistan, one of their currently targeted countries.

By 1956, the Soviet Union and East European nations were offering academic scholarships to about 1,000 students from a few developing countries. Since then, estimates are that nearly 300,000 students from over 100 countries have received academic, technical, and military training. In 1982 alone, there were some 83,000 students in the Soviet Union and Eastern Europe, and another 27,000 in Cuba. These large numbers of foreign students, most at the undergraduate level, reflect the development of more sophisticated and competitive programs and an increasing demand for higher education in many countries. An additional 5,000 were attending short-term technical training and another 5,000 were receiving military training, largely related to foreign military sales agreements.

The Soviet surrogate in the Western Hemisphere, Cuba, was also pressed into service and has provided academic and technical training to another 50,000 students since the early 1960s. Of the estimated 27,000 foreign students attending Cuban schools in 1982, about 14,000 were elementary and secondary school children and youth enrolled in the Isle of Youth Program. The remaining 13,000 were enrolled in academic and technical programs at universities and institutes.

Specifically looking at Central America, the following shows the approximate student breakdown for 1982:

Country	Warsaw Pact	Cuba	Total
Belize	25	30	55
Guatemala	100	5	105
El Salvador	75	(1)	(2)
Honduras	225	10	235
Nicaragua	1,250	5,000	6,250
Costa Rica	700	5	705
Panama	1,050	50	1,100

(1) Unknown.

(2) 75 plus.

Most of these students, when they return to their native country, have a hard time finding jobs in the private sector. As a result, most end up in the public sector, especially in education. These graduates, because large scale Communist recruiting in Latin America is a relatively recent occurrence, have not yet reached high levels in their professional careers. We may not feel the real effects of the Soviet scholarship programs for a few more years when these individuals gain more seniority. There may also be some kind of "critical mass." As more and more Communist-trained students return to a country, they may be in a position to wield real influence.

By comparison, there is no U.S. program. U.S. programs are few and often targeted on the middle and upper classes of Latin America. Our U.S. Government sponsored scholarships underwent a strategic shift in the 1970s: In 1972, 30 percent of the scholarships went to Latin America; by 1982, the Latin American share was down to 18 percent. For all of Latin America, in 1983, some 15,900 students were provided financial assistance by communist countries; there were only 400 students from Latin America in the United States on government funded programs.

The National Bipartisan Commission on Central America recognized this problem and recommended a program of 10,000 government sponsored scholarships to bring Central American students to the United States. The Central American Peace, Democracy, and Development Act of 1984 (Jackson Plan) provides more than $145 million in scholarship money (fiscal year 1984–89).

PANAMA AND CANAL SECURITY

Senator WARNER. What is the short and long term outlook for the stability of Panama and the security of the Canal?

General **Gorman**. Short term: Depends on economic revival of Panama, its ability to reservice its foreign debt, and to devise a responsible domestic financing plan which is supported by the legislature and the principal political parties.

Long term: In my view, Panama can, with continued assistance from the United States, remain stable and provide for the land defenses of the Canal. But I do not believe that there is any prospect that it can afford to develop the forces necessary to defend against air or maritime threats, even those of a terrorist nature. The just completed Kindle Liberty exercise demonstrated that the Panamanian Defense Forces are developing on the right track and will be capable of handling the projected ground threat.

Questions Submitted by Senator Dan Quayle

REFUGEE CAMPS IN HONDURAS

Senator **Quayle**. General Gorman, is there any truth to reports that Salvadoran rebels are using border refugee camps in Honduras as resting places and that as soon as rebel forces come to the camps to rest, rested rebel forces at the camps take to the field?

General **Gorman**. Yes.

Senator **Quayle**. What are the difficulties of moving these camps away from the borders?

General **Gorman**. Threefold. First, the camps are under U.N. auspices, and Geneva must be convinced. Second, relocation engages Honduran internal politics in an election year—everyone wants the refugees in someone else's district. Third, some arrangements would no doubt have to be made for repatriating Salvadorans under guarantees of safety, which could pose problems for President Duarte's government. But none of these problems, in my view, are insuperable.

Senator **Quayle**. Is the Honduran government hesitant to help? If so, why?

General **Gorman**. As I indicated, it is a matter of local politics. I believe the Hondurans want the camps relocated, but have not figured out how to do it.

WAR RESERVE MATERIEL

Senator **Quayle**. General Kingston, in your testimony on page 14 you state that our tendency has been to bow-wave funding for war materiel to provide a near term offset whenever defense budget cuts are enacted and that this dilutes our efforts to "support the initial surge" that could be required in a major conflict. You make specific reference to the need for more spare parts to maintain aircraft sortie rates. Yet you make no reference to preferred air-to-surface and land attack munitions to increase effectiveness and kills per sortie. Nor do you make any reference to SMART munition vehicles such as cruise missiles, which might complement air interdiction missions.

Do we have too much of these items?

General **Kingston**. [Deleted.] I consider these munitions as critical force multipliers and essential for the success of my warfighting capability.

COUNTERTHREAT BASES

Senator **Quayle**. In any conflict that the Soviets might involve themselves, would it not be crucial to be able to threaten the bases from which they might attack?

Where might F-111 and F-15E and F-16 be based in the Central Command theater, and what would be their combat radius for air interdiction missions? Could any of them threaten Soviet staging and air bases in the Transcaucasus? If so, which plans from which bases?

General **Kingston**. In any conflict with the Soviets, holding their operating bases at risk of destruction is of great military value if not crucial to ultimate defeat of the enemy.

In addition to the F-111, the modernization of our tactical fighter force with F-15E and LANTIRN equipped F-16 aircraft will give a sharp increase in capability to interdict the Soviets. We must continue closing the gap in night, adverse weather interdiction capability in order to deny the enemy the sanctuary of night operations. Exact basing of these fighter aircraft would be scenario dependent. Given land basing within 600-1,000 nm of the conflict, our added advantage of air-to-air refueling and force modernization, Soviet forces and operating bases would be at risk day or night.

BASES IN TURKEY

Senator **Quayle**. How important is Turkey in the staging of any of your command's possible operations?

General **Kingston**. Facilities in many NATO countries may need to be used to support large contingencies in my AOR. [Deleted.]

CARRIER BATTLE GROUPS IN PERSIAN GULF

Senator **Quayle**. Although your command could draw upon aircraft carrier battle groups, would it be reasonable to deploy such groups in the Persian Gulf to deal with major conflicts in this region? Under what circumstances would it not make sense?

General **Kingston**. The support of CVBGs in major conflicts in the USCENTCOM area is vital. However, deployment of CVBGs into the Persian Gulf is not anticipated.

FRIENDSHIP AND COOPERATION VITAL

Senator **Quayle**. You mention the desirability of having stronger friends on page 19 of your testimony. How important is the friendship of nations such as Jordan and Saudi Arabia to your command's operations? Is there any sort of weapons system that you do not think would be prudent for these nations to have at this time?

General **Kingston**. Friendship and cooperation with all of the friendly states in the region are important to USCENTCOM.

Saudi Arabia occupies a vital geostrategic position and is acknowledged as one of the leading states in the region. It is a logical Persian Gulf geographical site to support operations in defense of Persian Gulf oil. Saudi Arabia, equipped with systems interoperable with those used by U.S. forces and trained by United States military advisors, would be in a position to assist in defense of the region. Jordan is also of strategic importance to the United States and USCENTCOM. Jordan has the longest frontier with Israel of any Arab state and is a center of political moderation in the Middle East. Jordan has significant military defense needs to meet the serious imbalance caused by the massive Soviet supply of arms to Syria.

At the present time, I know of no weapons systems that have been requested or are being considered by these nations that are not legitimate requirements to meet their defense needs.

Question Submitted by Senator Jeremiah Denton

HUMANITARIAN RELIEF TO CENTRAL AMERICA

Senator **Denton**. General Gorman, can you tell us your view of the utility and the implementation to date of the so-called "Denton amendment" to allow the space-available use of military resources to transport privately-supplied humanitarian relief supplies to Central America?

General **Gorman**. Unfortunately, the Departments of Defense and State have not yet been able to develop, or translate, the Denton Amendment into a workable arrangement. The bureaucracies are just now finalizing the mechanics of the program and the much needed, and proffered, aid beginning to flow. But it is a splendid provision of law, and should be extended and expanded into subsequent years, and regularized by the Departments of the Executive Branch concerned. Procedures are needed to identify requirements at the local level, as are provisions to allow deploying U.S. exercise forces to collect and transport humanitarian relief supplies.

Questions Submitted by Senator Sam Nunn

STRATEGIC NUCLEAR PROGRAMS

Senator **Nunn**. There is a growing tendency by the Defense Department, particularly with resumption of arms control negotiation, to say that the strategic nuclear programs should be fenced from any reductions in the defense budget.

If the defense spending levels of the current Five Year Defense Program are reduced to an average 3 percent level, as they almost certainly will be, what effect would exempting strategic nuclear programs and the Strategic Defense Initiative from any reductions have on our conventional capability and our capability for low intensity conflict.

U.S. Southern Command

General **Gorman**. Fencing Strategic Programs would not necessarily impact my readiness, provided I had continued access to security assistance, intelligence, communications, mobility, construction and medical units, including those of the Reserve Components. Again, the sorts of forces I need are different in kind from those of other CINCs; and I believe the Joint Chiefs of Staff could provide, even under the hypothesized circumstances, for USSOUTHCOM's readiness for low intensity conflict. Readiness for low intensity conflict, however, can not automatically be equated with readiness for mid and high intensity conflicts.

U.S. Central Command

General **Kingston**. As USCINCCENT, I will fight with the forces provided my components by the Services. The Services will have a large role in determining where and how defense spending reductions are applied. Consequently, until it is clear where the cuts will be applied, I cannot completely assess the effect of fencing strategic programs. My concerns are that strategic lift capabilities, munitions, and readiness programs for USCENTCOM forces be funded.

REDUCING MILITARY PERSONNEL IN SUPPORT FUNCTIONS

Senator **Nunn**. There have been recent suggestions in Congress that we could reduce the number of military personnel in support functions.

What impact, if any, would a 10 percent reduction in support forces have on the overall capability of the forces under your command?

U.S. Southern Command

General **Gorman**. "Support forces" are precisely the forces which are most important for readiness for low intensity conflict. As you saw in my construct of the force functions which are engaged in countering low intensity conflict, "support forces" are predominant. The broad use of Reserve Component forces could compensate for some reductions, but a general reduction of 10 percent in active support forces would severely impact U.S. capabilities at the low end of the spectrum of conflict.

U.S. Central Command

General **Kingston**. A 10 percent reduction in support forces would have a significant detrimental impact on USCENTCOM. Current support forces are not adequate to deploy and sustain combat forces. Lack of logistics infrastructure in potential operating locations further argues against a reduction in support forces. While we are attempting to overcome current support structure shortfalls through improved material handling equipment, reorganized support units, modern transportation assets and host nation support, lack of access agreements in the region hampers USCENTCOM efforts to develop a support infrastructure. This situation would be further exacerbated as the current force increases in size to counter the enemy threat. A 10 percent reduction would cause a loss of support for 1 1/2 Air Force fighter wings. The impact on Army forces is more difficult to quantify. Such a reduction would impact both direct support of Army combat units and general support forces who operate reception ports through which personnel, equipment, and supplies flow. Any further reduction in support forces would have a serious impact on USARCENT's ability to support and sustain the current as well as the programmed force for fiscal year 1987.

C-RATINGS

Senator **Nunn**. There has been some criticism by DOD officials of the C-ratings used under the UNITREP system to report unit readiness.

Do you personally use the C-ratings to monitor the readiness of units under your command? What other indicators do you use to measure trends over time? What indicators should we in the Congress use to measure progress in this area?

In general, what do the C-ratings trends for the past year show for the units under your command?

U.S. Southern Command

General **Gorman**. I do not follow closely the C-ratings for units under my operational command. Rather, I watch performance criteria on equipment availability, strength deployed, and key production indices. C-ratings are gross indicators best used at departmental levels for resource allocation; whether useful for Congress would depend on how closely Congress intends to manage such matters. Note well that USSOUTHCOM is a special case, where assigned forces are very few, and readiness, in the sense of resource allocation, is largely charged to other CINCs.

U.S. Central Command

General KINGSTON. With regard to monitoring the readiness of combat forces assigned to me, I am provided a report on a regular basis. In addition to monitoring the C-status, I require a semi-annual situation report from my component commanders that covers the full spectrum of military capability. In addition, the qualitative indicators of military capability are also demonstrated through military exercises. The BRIGHT STAR series of exercises that have been conducted within my area of responsibility are a prime indicator of the combat capability of the forces involved as well as the capabilities of the supporting units and facilities that will be required in a contingency. The successes and failures within these exercises point out our strengths and weaknesses in a most graphic manner.

In assessing progress in military capability, Congress should look at force structure, force modernization, force readiness, and force sustainability. In the past, readiness and military capability have often been incorrectly used interchangeably leading to erroneous conclusions. Our primary concern must be to improve the overall military capability to which readiness is only one of the contributing factors.

In general, the C-rating trends for those units that I monitor have remained fairly stable; although my total military capability has improved through modernization, pre-positioning of supplies (sustainability), and improvements in force structure.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

UNKNOWLEDGEABLE OPERATIONS IMPROBABLE

Senator LEVIN. Would it be possible for U.S. military personnel or employees of the Defense Department or military departments, to operate in your region without your knowledge?

General GORMAN. Possible, but quite improbable.

ANTI-SANDINISTA GROUP SUPPORTED BY U.S. PERSONNEL

Senator LEVIN. Have U.S. military personnel or employees, since December 1982, assisted or supported, directly or indirectly, any anti-Sandinista group?

General GORMAN. I will respond only for the period of my command, 26 May 1983 to 2 March 1985. I am confident that President Reagan's decisions to commit U.S. forces to activities in Honduras and the waters off Nicaragua encouraged the Freedom Fighters and aided their recruiting. But those U.S. forces provided no more direct support.

COMBAT READINESS OF U.S. FORCES

Senator LEVIN. You have been outspoken about the high priority you place on maintaining and improving day-to-day combat readiness of your forces, as well as improving their sustainability. This budget request will be cut. Would you agree that we should minimize any reductions in the O&M, combat readiness, and sustainability accounts and that these accounts should be the "last" cut, if at all, and not the "first" cut?

General GORMAN. No. I am suspicious of glib formulas such as suggested. As a CINC, with forces engaged in maintaining and improving their capabilities by performing real-world tasks, I am naturally concerned with their O&M resources, and their logistic support. But I have need for procurement and construction funds as well. I point out that shaving USSOUTHCOM funds in any so-called account is of very marginal utility for a budget cut, in that the amounts allocated my command in the budget are relatively small. If I had to absorb cuts, I would do so by altering missions or functions to fit reduced resources.

Senator LEVIN. In priority order, what are your most critical shortfalls in readiness and sustainability in U.S. forces in your command?

General GORMAN. I cannot respond in open session since they fall mainly in C3I.

Senator LEVIN. If we were to add funds to the fiscal year 1986 defense budget, what would be your personal, professional, prioritized recommendations as to how much and what top five categories which could be executed in that fiscal year?

General **Gorman**. Again, open discussion of such matters would serve no useful purpose. I have submitted proposals to the Department of Defense for improvements in the fiscal year 1986 budget with respect to Special Operations Forces, Security Assistance, Intelligence, Communications, and Mobility.

READINESS DEFICIENCIES

Senator **Levin**. What are the most critical readiness deficiencies in each of our allied military forces, by country and in priority in your command area?

General **Gorman**. In general, I stand by the extensive analyses presented to the Congress in support of the Security Assistance request for fiscal year 1986. I have recommended to DOD consideration of additional U.S. support for better capabilities among Latin allies to deal with international smuggling of arms, munitions, subversives, terrorists, and illegal drugs.

MAINTAINING AND IMPROVING SUSTAINABILITY

Senator **Levin**. You have been outspoken about the high priority you place on maintaining and improving their sustainability. This budget request will be cut. Would you agree that we should minimize any reductions in the O&M, combat readiness, and sustainability accounts and that these accounts would be the "last" cut, if at all, and not the "first" cut?

General **Kingston**. Let me start by saying that all the pillars of defense are so interrelated that no single pillar should be isolated and pronounced the most important. However, I agree with your premise in general terms. We should ensure that the readiness of our current forces is funded, then ensure that these forces can be sustained in combat, and then consider modernization and force structure.

But, when we look at the specifics, the priorities are not as clear cut. For example, over a five-year period, it may prove more cost effective to replace equipment with new gear than it would be to maintain the older equipment, or if shortfalls of equipment degrade combat readiness (e.g., strategic airlift), then new equipment must be purchased. Such trade-offs are considered by the service and OSD staffs, and can best be addressed in detail by them.

READINESS DEFICIENCIES

Senator **Levin**. What are the most critical readiness deficiencies in each of our allies military forces, by country and in priority order in your command area?

General **Kingston**. There are two factors to consider in responding to your question about the readiness deficiencies existing in the countries of the USCENTCOM AOR. One concerns the problem all industrially less developed nations face, and that pertains to the general lack of technological awareness in an age when military armaments and the means to employ them have become extremely complex. The second factor to consider is that the capability of any one regional nation to provide an adequate defense against an outside threat is very limited. [Deleted.]

Across the board enhancements in the following areas are necessary to achieve [deleted].

Air Defense Enhancements. Every effort needs to be made to encourage the standardization and integration of the air defense assets of regional states, particularly in the states bordering the Persian Gulf. [Deleted.]

Land Forces Enhancements. With few exceptions, local nations are required to defend vast territories with relatively small populations and consequent small armed forces. Emphasis must be given to enhancing force mobility and firepower. [Deleted.]

Training. Training and retraining will be increasingly important dimensions of employment and maintenance as new technologies appear in weapons systems and their repair processes. The training aspects of security assistance must be emphasized. The benefits of foreign military training conducted in CONUS and the use of training teams in the region should be promoted both at home and abroad. Such programs benefit local national trainees and also develop a greater appreciation for the region among U.S. personnel associated with the program. [Deleted.]

Communications/Electronics. As electronic warfare has two elements: to effectively confound/confuse an enemy's propagation capability and, equally, to assure our ability to communicate; we must look to improve the communications and electronic capabilities of friendly states with whom we must communicate to coordinate the battle.

Logistics Support Equipment. Limitations on the available aerial port capacity, material handling equipment, surface transport and refueling/maintenance capability may hamper achievement of mobility objectives. Standardization in logistics support equipment requires emphasis. In this regard, the assistance of the Agency for International Development, private or third country enterprises needs to be encouraged.

Naval Enhancements. Local naval enhancements to assure port and territorial waters security are needed. [Deleted.]

SHORTFALLS IN READINESS AND SUSTAINABILITY

Senator LEVIN. What are your most critical shortfalls (in priority order) in readiness and sustainability in U.S. forces in your command?

If we were to add funds to the fiscal year 1986 budget, what would be your personal, professional, prioritized recommendations as to how much and in what top five categories and which could be executed in that fiscal year?

General KINGSTON. This is a multi-faceted question. I will first address the shortfalls in readiness for those forces that I've been assigned for planning purposes. In order to completely address this question I must first draw the distinction between military capability and readiness. These terms are not interchangeable, although, they are often confused by laymen. Attempts to derive a direct correlation between readiness and military capability have in the past resulted in erroneous conclusions. Military capability is the ability to achieve a specified wartime objective such as winning a battle. It includes four major components: force structure, modernization, sustainability, and readiness. Since USCENTCOM became a unified command, my total military capability has improved through modernization (i.e., new aircraft, tanks, communication equipment, etc.), force structure changes (i.e., numbers, size, and composition of those forces assigned to me for planning purposes), and sustainability (i.e., Near Term Prepositioning Force, prepositioning of supplies, etc.).

Unit readiness as measured by the C-rating system indicates the degree to which the rated unit is currently capable of performing the wartime mission for which it is organized. A factor such as modernization may actually have a negative effect on a unit's readiness. For example, when a unit transitions to a new weapon system with all its associated equipment and training, the readiness factor will drop until personnel are fully equipped and trained. However, the unit's military capability may actually be improved during this same transition period. This may be because of the improved equipment. Units transitioning to more capable weapons systems have increased military capability even though their readiness factor is low. Similarly, the other factors of military capability can impact upon readiness rates.

Currently, shortages in senior grade non-commissioned officers are having an adverse impact on C-ratings for personnel and training. Additionally, a shortage of spares for equipment is affecting the readiness rate. Both of these factors are equally critical in maintaining the overall C-rating of those units assigned to me for planning purposes.

In the sustainability area, the most serious shortfall is in war reserve munitions, particularly threat-oriented munitions, i.e., air-to-air missiles, surface launched air defense missiles, and high tech level of effort ammunition, such as laser guided bomb kits and copperhead artillery rounds. Adequate stockage levels of these items must be attained due to the current deficiencies in production surge capabilities.

The second priority is in spare parts, specifically for aircraft. I must be able to deploy with, or have pre-positioned, sufficient aircraft spare parts to maintain planned sortie rates during the initial phase of an operation.

My third priority is Army war reserve materiel stocks, particularly major items of equipment; tanks, artillery pieces, trucks, communication equipment, etc. [Deleted.]

The fourth priority is funding to provide facilities for the pre-positioning of my sustainability supplies within the AOR. This can be in the form of O&M to lease warehousing or additional afloat storage or MILCON. AOR countries are starting to become receptive to discussing access for pre-positioning. Funds must be available to capitalize on any breakthrough. I need the supplies and equipment to establish a logistic infrastructure pre-positioned to free strategic air and sealift assets for unit deployment.

My fifth and final priority shortfall is medical supplies and equipment.

To fully fund all of these shortfalls would take more money than will be available. However, if more money were appropriated, one approach would be to allocate the money so that related programs grew concurrently or were brought on line with each other.

QUESTIONS SUBMITTED BY SENATOR EDWARD M. KENNEDY

DEFENDING PRE-POSITIONED SUPPLIES

Senator KENNEDY. How would you assess our current capability to defend our pre-positioned supplies from hostile attack during crisis?

General KINGSTON. Although an absolute guarantee for the protection of supplies is not possible, there are many protective measures that are being implemented. [Deleted.] Overall, our capabilities are by no means fail-safe. However, prudent protective measures have been implemented and methods of improvement are being pursued.

SUSTAINABILITY

Senator KENNEDY. What percentage of our short-term (30 days) sustainability is pre-positioned?

General KINGSTON. Based on a worst case scenario and short-term sustainability (30 days), [deleted]. These percentages of fill also require qualification. All of the ammunition and subsistence is aboard ships of the NTPF and MEDNTPS and are not dedicated exclusively to sustaining my forces. [Deleted.]

TILT ROTOR AIRCRAFT

Senator KENNEDY. You say you have a need for an advanced rotor aircraft. For what mission? What capabilities must it have? In what quantity?

General KINGSTON. Although an advanced tilt rotor aircraft would greatly improve conventional ground force, search and rescue mobility, and the ship to shore movement for Marine Corps forces, [deleted]. Further, the HH-53s are aging and no medium or long range replacements are programmed. [Deleted.]

Regarding aircraft capabilities, the JVX must have the following long range capability: [deleted]. Regarding use of the JVX for conventional ground force and search and rescue missions, further study with the Services is required to determine required numbers.

PHASING DOWN PERSONNEL IN EL SALVADOR

Senator KENNEDY. Looking at your "point paper" attached to your statement, is it fair to conclude that at any given moment in El Salvador, we have about 125 U.S. military personnel? (not counting the U.S. Marine Guard at the Embassy.)

When will it be possible for a phase down in this number to begin to occur?

General GORMAN. I can not foresee precisely, but I could believe the Medical Mobile Training Team (MTT) can be cut back soon, and the National Basic Training Center MTT should finish its mission within four to six months. Much hinges on the restart of the Regional Military Training Center in Honduras; if the Salvadoran Armed Forces return to training there, the load on in-country MTTs should be reduced. I believe that the so-called "stalemate" has been broken and, with continued U.S. support and continued pressure on the Sandinistas so that they reduce their support to the Salvadoran guerrillas, President Duarte can win.

MILITARY ASSISTANCE TO EL SALVADOR

Senator KENNEDY. Last August you said that if Congress gave the government of El Salvador what it asked for in the way of military assistance, the government of El Salvador would be able within 2 years to obtain effective control over 80-90 percent of its territory and people. Do you stand by that today?

General GORMAN. Yes.

EL SALVADOR'S AIR ATTACK CAPABILITY

Senator KENNEDY. According to recent reports, average flying hours for helicopters and A-37 aircraft—the core of El Salvador's air attack capability—increased by over 220 hours per month between July 1983 and February 1984.

Could you give the committee an assessment of the needs of the Salvadoran Air Force and outline any planned increase in equipment and firepower?

Fiscal year 1984 and 1985 military assistance of $328 million has enabled the Salvadoran armed forces to almost triple the number of helicopters in its inventory from 19 in January 1984 to 46 by the end of the year.

Does the El Salvadoran government have the capacity to maintain and operate these aircraft without direct U.S. military involvement?

General **Gorman**. First, let me address the premise of your question—that the "core" of the Salvadoran air attack capability increased between July 1983 and February 1984. During that period, the air attack capability did not increase. The attack capability consisted of six A-37 Dragonfly aircraft, one lightly armed Hughes 500 helicopter, and eight 0-2A observation aircraft. During this period, it was the air mobility capability that increased by the addition of four UH-1H helicopters. These helicopters are armed only with a doormounted M60 machine gun—a defensive, not offensive system. The UH-1H is designed for the transport of troops and equipment, not for attack operations. In addition, Salvador's air fleet grew by four MEDEVAC helos, which are not armed. The increase in average flying hours per month was a result of increased emphasis placed on airmobile operations and an in-country training program which is up-grading co-pilots to qualify as pilots. With eight additional helicopters, the 220 hour increase per month represents less than 30 hours per airframe—a flight load which is certainly not indicative of intensified air operations.

The needs of the Salvadoran Air Force (FAS) are dependent on the levels of insurgent activity, battle loss or damage, and absorption capability, which is based on the availability of pilots and mechanics. The primary requirements are for air mobility and fire support. For air mobility, the FAS has received a total of 46 UH-1H helicopters through U.S. security assistance, to include the four MEDEVACs. Four helos have been lost to attrition. Thirteen of the 46 were not received until calendar year 1985. In fiscal year 1985, the FAS will purchase six more UH-1Hs. Projections for fiscal year 1986 are for six additional UH-1Hs. Air mobility will be also improved by the delivery of five C-47 transport aircraft in fiscal year 1985. These aircraft will also be useful as the Government of El Salvador begins to rebuild the economy and infrastructure destroyed by the war.

The FAS attack capability presently consists of nine A-37Bs, two Hughes 500 (only one lightly armed), and two C-47 Airborne Support Platforms, plus the O-2 observation aircraft. In fiscal year 1985, one additional A-37B and four Hughes 500s will be purchased. The ground attack capability is a force efficient counter to the guerrilla tactics of destroying lines of communication, ambushing government units, conducting small unit operations, and "spectacular" attacks. Without air support, the government would have to greatly increase the numbers of ground troops, with the attendant political and economic costs.

The Salvadoran Air Force has been very professional and capable in maintaining and operating their aircraft. Their operational readiness rates approach those for comparable U.S. units. The FAS currently has 86 mechanics, with more in training. The emphasis on mechanic training should continue the high readiness rates, although U.S. contract maintenance assistance and occasional MTT/quality assurance teams will continue to be necessary. The FAS currently has some 25 fully qualified helicopter pilots and the 60 co-pilots who are participating in the up-grade training program. Training programs in the United States will produce approximately 10 fixed wing and eight helo pilots annually.

MILITARY BASES IN HONDURAS

Senator **Kennedy**. Do you agree with this characterization of the purposes of our military bases in Honduras:

"It is my impression that the U.S. base construction in Honduras has two basic objectives. First to provide U.S. Southern Command with sufficient base infrastructure in Honduras to be able to react rapidly to any directive to send sizeable contingents of U.S. troops into action in Central America. Secondly, at the same time to provide Southern Command with regional training facilities that are no longer available in Panama."

Aren't these bases really there to provide for contingency operations if U.S. forces are deployed to fight in Central America—and to assist in the in-country training of U.S. and Honduran forces?

And if that is not what they are there for, what is the purpose of those facilities?

General **Gorman**. No, I do not agree with that characterization. There are no U.S. bases in Honduras. Rather, we have access to a number of facilities on Honduran bases, or the use of airstrips in several parts of the country, as well as permission to use adjacent Honduran land for training. Existing Honduran facilities do support USSOUTHCOM operations as do facilities which many friendly countries make available to us. Current operations include extensive, and invaluable, training exercises for U.S. forces. There is little relationship between these exercises and the U.S. Army School of the Americas, which was moved to Fort Benning, GA, on October 1, 1984, from Panama.

JOINT EXERCISES WITH NATIONS OF CENTRAL AMERICA

Senator **Kennedy**. I would like to ask whether there has been any effort made to have joint exercises with some of the nations of Central America and what the result has been.

Has Guatemala ever been asked to participate in military exercises with the United States? Has it ever declined? Has it ever participated?

Has El Salvador ever been asked to participate in military exercises with the United States. Has it ever declined? Has it ever participated?

Has Honduras ever been asked to participate in military exercises with the United States? Has it ever declined? Has it ever participated?

Has Panama ever been asked to participate in military exercises with the United States. Has it ever declined? Has it ever participated?

Has Costa Rica ever been asked to participate in military exercises with the United States. Has it ever declined? Has it ever participated?

General **Gorman**. The United States and the various governments of Latin America, to include Central America, have been participating in combined military training exercises for over 25 years. These exercises serve both U.S. military and host country military objectives of increased readiness and interoperability. Specifically, and limiting my response to the past 2 years:

	Invited	Declined	Participated
Guatemala	Yes	Yes	Yes (observers).
El Salvador	Yes	No	Yes, Granadero I, King's Guard I & II (spring and summer 1984).
Honduras	Yes	No	Yes, e.g. Ahuas Tara I, II, III (1983–1985); Granadero I.
Panama	Yes	No	Yes, e.g. Kindle Liberty 1983 and 1985; Fuerzas Unidas 1984–Panama, Blazing Trails 1985.
Costa Rica	Yes	Yes	No.

CUBAN MILITARY ADVISORS IN NICARAGUA

Senator **Kennedy**. I have heard various conflicting reports as to the number of Cuban military advisors that are in Nicaragua at the moment. Could you tell me:

How many Cubans are in Nicaragua now in toto? and

How many of them are functioning as military advisors to the Nicaraguan military?

General **Gorman**. The latest numbers I have seen range from 7,500 to 9,500, of which 2,500–3,500 are military and security advisors. Cubans now permeate throughout all levels of the entire Sandinista government. Since Grenada, the Cuban civilian advisors are almost all male and with prior military service.

SANDINISTAS AID GUERRILLAS IN EL SALVADOR

Senator **Kennedy**. Last August, you gave a news briefing with Ambassador Pickering in which you presented evidence that you claimed showed that the guerrillas in El Salvador were being supplied by the Sandinistas in shipments by sea from northwest Nicaragua to the Salvadoran coast, by land through Honduras, and by air.

Do you have any new or additional evidence showing that—since August—the Sandinistas have continued to supply the guerrillas in El Salvador with guns and ammunition?

General **Gorman**. Yes, but the evidence is classified. The infiltration from Nicaragua continues, although it has been hindered by the improved Salvadoran ability to impact the flow of munitions and other materiel, and by the fact that the Sandinistas no longer can devote so much of their resources to supporting the FMLN, but now must contend with the Nicaraguan Freedom Fighters. The information at our disposal clearly indicates Sandinista complicity, from the top down, in supporting the FMLN from Nicaraguan territory.

PROBABLE COSTS OF U.S. INVASION OF NICARAGUA

Senator **Kennedy**. What would be the cost in terms of U.S. lives and dollars of a U.S. invasion of Nicaragua?

General **Gorman**. Depends on when, with the price going up as a function of increased Sandinista military capability.

The cost in lives and dollars would also vary as a function of the antecedent events, e.g., developments enhancing the status of the Freedom Fighters, or undercutting the power and authority of the Sandinista regime.

But whatever the cost in lives and dollars—and I have no way of estimating either—there would be another cost: the historic strategic set-back which would attend another use of U.S. armed force in Nicaragua. We should avoid such a use by any means at our disposal.

Chairman **Goldwater**. I want to thank both of you for being here. It has been an excellent presentation.

[Whereupon, at 11:55 a.m., the committee recessed, to reconvene at 2 p.m. the same day.]

AFTERNOON SESSION

The full committee met, in open session, pursuant to notice, at 2 p.m. in room SR-222, Russell Senate Office Building, Senator Barry M. Goldwater (chairman) presiding.

Present: Senators Goldwater, Thurmond, Warner, Cohen, Denton, Nunn, and Glenn.

Staff present: Arnold L. Punaro, staff director for the minority; Allan R. Yuspeh, general counsel; Jeffrey H. Smith, minority counsel; Richard D. Finn, Jr., Douglas R. Graham, John J. Hamre, George K. Johnson, Jr., Ronald P. Kelly, Gordon G. Riggle, Mark B. Robinson, Carl M. Smith, and James C. Smith III, professional staff members; Judith A. Freedman, Russell C. Miller, and Patricia L. Watson, research assistants; Mary J. Kampo and Karen A. Love, staff assistants.

Also present: Gerald J. Smith, assistant to Senator Goldwater; Romie L. Brownlee, assistant to Senator Warner; James H. Dykstra, assistant to Senator Cohen; Henry D. Sokolski, assistant to Senator Quayle; Allan Cameron, assistant to Senator Denton; John Rasmussen, assistant to Senator Gramm; Jeffrey B. Subko, assistant to Senator Exon; Peter D. Lennon, assistant to Senator Levin; Charles C. Smith, assistant to Senator Dixon; and Phillip P. Upschulte, assistant to Senator Glenn.

Chairman **Goldwater**. The meeting will come to order.

This afternoon we continue our testimony from the Commanders of the Unified Commands. This morning we heard from General Gorman and General Kingston. This afternoon we will be hearing from Adm. Wesley McDonald, Navy Commander in Chief, U.S. Atlantic Command and Adm. William Crowe, U.S. Navy, Commander in Chief, U.S. Pacific Command.

Gentlemen, we appreciate your coming here this afternoon and, unlike most in Washington who usually testify, you have operational responsibilities, giving your testimony a special authority.

You are welcome to submit your complete statements and any supporting material you wish for the record, and we will include that in its entirety. In any case, you may proceed as you see fit. I think we will hear first from Admiral Crowe.

STATEMENT OF ADM. WILLIAM J. CROWE, JR., U.S. NAVY, COMMANDER IN CHIEF, U.S. PACIFIC COMMAND

Admiral CROWE. Thank you, Mr. Chairman.

I appreciate very much this opportunity to provide you with my assessment of the Asia Pacific theater. It is always a privilege to meet with the committee, either here in Washington or when you come through Hawaii and visit the Pacific Command staff.

I might also say it is a pleasure to appear with Admiral McDonald. He and I are Naval Academy classmates. We are the only two in our class still left on active duty.

I have submitted a detailed statement for the record, and with your permission, I will merely summarize it in my oral remarks, Senator.

Chairman GOLDWATER. We will put it in the record.

Admiral CROWE. Our determination to remain a Pacific power and to back this determination with enlightened policies—political, economic, and military—has been an important contributing factor in promoting the affluence, the political stability, and the peaceful climate which characterize so much of Asia today.

As I travel throughout my area of responsibility, I find more coincidence of view between Washington and the Asian capitals than we have enjoyed in many years. East Asia's phenomenal economic performance—last year our trade in the region was around $174 billion or 32 percent of our global dealings—which, combined with our own strong political and security ties in the Pacific Basin, suggests that the center of gravity of American interests is shifting westward. In turn, I would also argue that we must constantly review our Pacific and Indian Ocean policies to ensure that they keep pace with the area's increasing importance.

The Soviet Union, on the other hand, has enjoyed relatively little overall success in the region. Its allies include Vietnam, North Korea, and Afghanistan's puppet government. This group of Soviet allies is neither grateful nor reliable from Moscow's standpoint and certainly has done very little to give Moscow a return on its political investment. Similarly, the Soviets have been unable to penetrate the Asian marketplace. This year they had about 8 percent of their exports go to East Asia, and less than 6 percent of their imports came from that part of the world. Moscow is not easily discouraged, however, and in its frustration about projecting influence in East Asia has turned to the one alternative which it can exploit and control unilaterally, and that is its military power.

With this in mind, I believe that it is useful to remember that our own military shield for over 30 years has deterred direct Soviet interference in the area and permitted our friends and allies to pursue their own course at their own measured pace. We can take great pride in the contribution that the U.S. military has made in promoting peace and progress in East Asia. I hear this sentiment expressed by civilian and military leaders alike everywhere I go.

Our strength is a direct result of your past support for DOD budgets and your determination to improve our military capability. We must not lose that momentum. This is especially important now that the Soviets have returned to the arms control bargaining table. Our reviving military strength was, in my view, no small factor in bringing about this change of heart.

As you have deduced by now, I am rather upbeat on the Pacific Asia region. Let me briefly sketch our more significant relationships.

UNITED STATES-JAPAN CONNECTION

The United States-Japan connection is central to our Asian policy and over the years has thrived. We must continue to tend it. While Japan has made some progress in improving its own defense, it is imperative that we persistently encourage the Government of Japan to spend more on its own military and to meet fully the security goals that it has set for itself.

PEOPLE'S REPUBLIC OF CHINA

I am gratified by the progress we have made in building a relationship with the People's Republic of China. We share parallel interests that can furnish the foundation for a more even and enduring bond. But this process should be a two-way street in which we both give and we both receive. At the same time it is imperative that the United States take into account the fundamental differences between our two societies and the concerns of our other Pacific friends.

Our historic tie with the Republic of Korea is strong and constantly growing, but the potential for conflict on the peninsula remains. Pyongyang is unpredictable and still capable of irrational acts, as witnessed last year by the brutal bombing in Rangoon. In turn, the U.S. presence remains a prime factor in deterring North Korean adventurism and encouraging the ROK to contribute more to its own defense.

ASEAN

Washington is working well with ASEAN, which is making impressive strides both economically and politically. On the other side of the ledger, however, the Republic of the Philippines is a cause for some anxiety at the present time. Its government is confronted with challenging political, economic, and security problems. As a military commander, I am particularly concerned about the growth of the Communist insurgency in the Philippines' armed forces. It is imperative to recognize this situation and to seek ways that we can assist the Philippine people in resolving their difficulties.

AUSTRALIA/NEW ZEALAND

Our ties with Australia are especially productive, but New Zealand has thrown a shadow over the ANZUS alliance. Wellington's "nuclear free" stand has been extended to close off our naval access to New Zealand ports. Given such a decision, it is difficult to follow Wellington's claim that it remains pro-ANZUS. Our own government is currently adjusting to this development.

These difficulties are, however, the stuff of everyday politics and should not obscure my original observation. On balance, our relationships with friends and allies in the Western Pacific present an encouraging picture.

SOVIET MILITARY THREAT

The Soviet military threat, however, is of a different order. As I mentioned, the Kremlin's lack of success seems to have pushed it to the one alternative that it can control unilaterally: increasing its military power.

I am confident that you are aware, of course, of the dramatic Soviet buildup in the Far East since 1969. I will mention only a few of the more significant developments. We are now confronting an impressive theater nuclear capability which includes some 135 SS-20 missile launchers and over 400 warheads. It likewise incorporates some 80 Backfire bombers, the world's most sophisticated long-range nuclear attack aircraft.

In all, over 2,000 modern combat planes are based in the eastern province of the U.S.S.R. This number has doubled in the last decade.

PACIFIC ARMADA

The Pacific armada, which is now the largest of the Soviets' four fleets in its order of battle, has about 82 or more major surface combatants and over 120 submarines, half of which are nuclear powered. The numbers grow every year; 53 modern ground divisions are deployed opposite the PRC. In the last year, two divisions and a corps structure have been added to this order of battle.

Also, the Soviets now enjoy military access to the Japanese northern territories, Cam Ranh Bay, South Yemen, and Ethiopia. And we have every indication that Cam Ranh Bay has become a permanent Soviet installation, expanding annually. In essence, the Soviets are pushing the potential confrontation zone farther and farther from their own shores.

Buttressing Russian strength are North Korea's forces. North Korea spends roughly 25 percent of its gross national product on its military structure. Pyongyang has approximately 850,000 men under arms, considerably outnumbering Seoul not only in manpower but in ships, aircraft, tanks, APC's, artillery, and special forces.

To the south, Hanoi musters about 1,200,000 men in its order of battle. The bulk are guarding the Chinese border, but 170,000 occupy Cambodia, 40,000 are encamped in Laos, and about 300,000 are stationed in southern Vietnam. We see no sign that the Vietnamese intend to retreat from Cambodia before the resistance is stamped out. Clearly, the Kremlin and its surrogates possess considerable capability for military mischief-making in Asia.

In the face of this determined buildup, the United States has not been standing still. In recent years our overall posture has steadily improved, and we are grateful to this committee and the Congress for this progress.

PREPAREDNESS AND READINESS

Practically every measure I have of preparedness and readiness is climbing. A continuous stream of new equipment and weapon systems is entering the fleet and the field. War reserve munitions, petroleum, spares, and sustainables are growing. Above all, the more glaring personnel deficiencies have been largely redressed. Today's young people are the finest I have seen in over 40 years of service. But I would argue that we cannot be complacent. Mark Twain put it well when he said, "even if you are on the right track, you will get run over if you just sit there." It is not a one player game. We must keep pace with our potential adversary.

As to the 1986 budget that we are addressing today, I am gratified by the Department of Defense effort. With limited resources we simply cannot satisfy simultaneously in one year all of our immediate and future requirements. Therefore, I consider this budget one step in a long process, and in my view, it achieves an appropriate and judicious balance between our near- and long-term needs and between contending categories.

SUSTAINABILITY

I will now speak to some of the specifics. Sustainability. Theater commanders are particularly sensitive to sustainability needs because they are charged with being prepared to conduct operations at any time. Their first interest is today as opposed to tomorrow.

Over the last few years increasing emphasis on sustainability has greatly improved the Pacific Command's ability to wage combat for reasonable periods. However, significant shortages do remain. A few categories deserve special mention.

Threat-oriented air-to-air missiles lead my list. As a result of slippages in AMRAAM development, Air Force procurement of the AIM-7 missile, the Sparrow, is critical. Similarly, the Navy is distressingly short of the AIM-9, or Sidewinder, and Phoenix missiles.

Both air services are far short of their goals in standoff munitions. I would suggest that the short-term stress must be on Maverick and guided CBU's. These missle munitions promise high return on the investment and are absolutely essential if we are to realize the full potential of the sophisticated aircraft that we now have entering our inventory.

Ground war reserve stocks require constant attention. Because of the depletion during the Vietnam War and the very size of these inventories, progress in filling them is inevitably slow. Our gravest shortages are in the newest categories; for example, improved conventional munitions for the 155-millimeter howitzer, and 8-inch artillery and the Copperhead shell. These munitions offer a quantum advance in capability and are badly needed in the Pacific.

If we are to be able to fight for reasonable periods, spare parts inventories are as important as ammunition. The 1986 budget takes an important step in this direction.

Just as significant are those military construction funds devoted to petroleum and ammunition storage, both of which currently limit our ability to deploy our stocks in a rational manner in the Pacific theater.

The proposed budget makes substantial inroads into my major sustainability requirements. I urge you to maintain the momentum in this area which is so critical to our effort.

As I mentioned, the men and women currently serving in the Pacific Command are our most valuable asset. To sustain our readiness we need to preserve the emphasis on enlightened personnel policies. Reasonable compensation and quality of life programs have a direct impact on both signing and retaining high caliber people. Your continual backing is vital.

END STRENGTH

Another important area that deserves close scrutiny is end strength. In my command, some of the new weapon systems and platforms coming on line are especially critical in compensating for Soviet numbers. Yet with existing personnel ceilings, both the Pacific Air Force and the Pacific Fleet will be hardpressed to fully utilize these improvements without some relief on end strength limitations. The new levels requested by the Air Force, the Navy, and the Marine Corps are minimal but very important.

I can make do with the proposed operations and maintenance account funding, but I urge you not to cut it. Crucial are moneys for flying and steaming hours, which are adequate but at the lowest acceptable minimum.

Money for ship modernization and fleet maintenance. Reduction in these items would create prohibitive readiness risks in my command. I am fully aware that O&M cuts show quick results fiscally, but in the end I believe that they will be more costly if they are reduced.

MODERNIZATION AND FORCE STRUCTURE

In the Pacific basin, vast distances and the dispersed character of the facilities put the emphasis on air and naval power, long-range delivery systems, reliable communications and base defense. Air defense is one of my highest priorities. In this regard, the Air Force and Navy over-the-horizon radar programs included in this budget are the very first steps in giving my command a critically needed early warning network which covers the entire Pacific and in turn gives us a genuine capability for having some prospect of countering the improved Soviet air inventory.

Equally pressing are air interceptors and long-range attack aircraft. The F-15E and F-16 buys, complemented by AWACS and tanker support, lead my weapon system list and are absolutely vital to the Pacific Command's future war fighting plans. Any temptation to cut or delay these programs must be vigorously resisted.

Fleshing out the air defense picture, point defense systems, such as improved Hawk, Stinger-post, and Chaparral are urgently required to enhance the survivability of our Pacific base structure. This capability has been ignored much too long.

Shifting to maritime concerns, submarine warfare is where Moscow has made its most determined and sustained efforts. Russian submarines are ranging the Pacific in greater numbers and with increasing confidence every year. In turn our ability to counter this threat becomes more difficult and more complex.

The 1986 budget supports a number of programs to maintain our edge; for example, the improved SSN-688, the P-3C update, TAGOS surveillance ships, ASW standoff weapons, and improvements to detection systems. We cannot afford to falter in this continuing contest of wits and technology.

CHEMICAL WEAPONS AND CHEMICAL WARFARE

In a different vein, the modernization of our retaliatory chemical weapons and defensive chemical warfare equipment is of great significance to self-defense and to deterrence. The Soviets have clearly demonstrated a willingness to use such weapons. It makes no sense to me to give them such a lopsided advantage in any weapons area.

We had a chemical capability, a very effective one, in World War II, and gas was not used. I would suggest that that was a humane outcome in itself.

COMMUNICATIONS

My widely dispersed forces and facilities make our communications structure particularly vulnerable. Our prime upgrades are the E-6A aircraft to improve the NCA's strategic connectivity, secure voice improvements to make the satellites more robust, and the revival of the Pacific's high frequency network. These items are my priority moderization and force structure requirements.

In summary, Mr. Chairman, I believe our political and economic position in the Pacific today is very strong, but it is imperative to understand that our military strength underwrites our success and will continue to do so in the indefinite future. If the Soviets were to gain a decided military superiority in the region, it would jeopardize our entire political-military posture. We must expend every effort to ensure that does not happen.

The proposed budget does not provide for all of USPACOM's needs or resolve all of my problems, but given the financial realities, it is well balanced, and the choices are wise ones. It is another sound step in the long-term process of ensuring our ability to deter Soviet aggression and, if forced to fight, to be confident that we will prevail.

The budget needs your support, and I request it, sir. Thank you. That concludes my remarks.

[The prepared statement of Admiral Crowe follows:]

Prepared Statement by Adm. William J. Crowe, Jr., USN, Commander in Chief, U.S. Pacific Command

Mr. Chairman and members of the committee, I appreciate very much this opportunity to provide you with my assessment of the Asia-Pacific region. It's always a privilege for me to meet with you, either here in Washington or when you visit the Pacific Command.

I speak to you today from the perspective of having lived and traveled extensively in the Pacific and Asia for the last 20 months. As I visit and discuss the range of security issues with prominent civilian and military leaders of the region, I find more cohesion and coincidence of view than I ever would have thought possible at this time. Ten years ago, as Vietnam wound down, I thought that we would need a quarter of a century to rebuild confidences that were marred by that conflict. That perception was wrong and, with a few exceptions, I am pleased with the progress I see in our regional relationships.

In 1984 United States trade with Asia and Pacific nations totalled approximately 174 billion dollars. This is up from 137 billion the year before, an increase of 27 percent. Our Asian-Pacific commerce now represents 32 percent of all our foreign dealings, a higher percentage than any other area of the world and indicative of things to come.

In my view the center of gravity of American interests has been shifting toward Asia and the Pacific as that area has achieved political and economic stability. This progress is due primarily to the energy, imagination, and initiative of the people who live there, but there is no doubt in my mind that our diplomatic, economic and military policies have also contributed significantly.

On the other hand, the Soviet Union has had little overall success in the region. It has realized very small political or economic returns on its investment. Its Vietnam relationship is costing the Soviets the equivalent of over three million dollars a day, which, in turn, underwrites Vietnam's suppression of the Cambodian people. The Soviet Union's actions in Afghanistan continue to tarnish its international reputation, and North Korea is neither a grateful nor reliable ally. Economically, the Soviets are almost non-players in the region. They have been unable to penetrate the robust Asian markets. Only seven percent of their exports go to Asia and the region accounts for only twelve percent of Soviet imports.

The Soviet Union is, however, a determined, patient, and resource-rich nation. Despite its poor political and economic showing in the area—or more likely, because of it—Moscow has turned to the one alternative it can develop and exploit unilaterally—military might. In the last decade and a half, we have seen a significant increase in both the quantity and quality of Russian Far Eastern strength.

I believe that our military shield has deterred Soviet intimidation and aggression in the region and has allowed each of our friends and allies to seek its own future, pursue its own course, and develop at its own pace. Our strength, which has preserved peace and advanced our interests in Asia, is a direct result of your support for past DOD budgets and your determination to improve our military capability. It is important that we continue the momentum we have established to sustain deterrence in the face of an expanding Soviet capability.

POLITICAL AND MILITARY DEVELOPMENTS

While I am upbeat overall regarding the Asia-Pacific region, there are some exceptions. The New Zealand/ANZUS dilemma and the Philippine situation come immediately to mind. Nonetheless, the net balance weighs heavily in our favor. Our nation's role is one of determined and effective support for the region's military, economic, and political progress with the goal of promoting peace and stability. This role is, and will remain as far as I can see, of great importance both to U.S. and free world security.

Within my area of responsibility, neither the strategic value nor the economic significance of Japan can be overstated. Strategically and geographically, Japan represents an area which Soviet planners cannot ignore as they seek to extend their reach into the Pacific. Given this reality, Japan is improving its self-defense posture every year. For example, the Japanese Air Self-Defense Force has become a modern and sophisticated force and the Japanese Maritime Self-Defense Force has made considerable progress towards achieving Tokyo's self-declared goal of defending sea lanes of communication out to 1,000 miles.

Economically, the U.S. and Japan together account for one-third of the gross world product. I believe it is in our interest to continue to seek a mutually beneficial, close, and lasting relationship with Japan in the coming years and that all of our political, economic, and security policies should contribute to strengthening that relationship. While we have made steady progress in the security field, it is important to recognize that a great deal more is achievable and remains to be done. It is imperative that we continue to encourage Japan to meet fully the security goals which it has set for itself.

I am gratified by the progress we have made in our relationship with the People's Republic of China. The U.S. and PRC have differences, but at the same time share important common interests that should be carefully nurtured. The PRC is a major player on the world scene and its role in the Asia-Pacific region will continue to grow. As USCINCPAC, I value this relationship as an important element in the strategic equation. I believe we should seek deliberate improvments in our association, but each step should be taken with long-term perspectives in mind. This process must be a two way street, in which we both give and receive, to ensure a healthy, sustainable relationship. I think we are on the right track with the People's Republic of China. We have established a foundation upon which cooperation can grow, while at the same time keeping clearly in mind the interests and concerns of our allies and other Pacific friends.

The Korean Peninsula has great potential for conflict. North Korea continues to be unpredictable and is still capable of irrational acts. In spite of that daily threat, South Korea has made impressive economic gains and its international standing and self-confidence increase year by year. The South Koreans are becoming more self-reliant militarily and more capable of dealing with the threat from the North. They also understand the broader strategic picture and the importance of peace on the peninsula to their Pacific and Asian neighbors. South Korea is rapidly achieving status as a major player in the world community and today possesses the economic wherewithal and international standing which makes it the envy of many other nations. U.S.-ROK relations will remain strong and should mature with time as we strive together for mutual betterment. In the security arena we are encouraging the Republic of Korea to take on greater responsibilities and contribute more toward self- and combined-defense improvement programs. These initiatives work to the benefit of both our countries and should be welcomed.

With regard to ASEAN and its members, I have seen growing political cohesion, exemplified by unanimity in voicing opposition to the Vietnamese incursion into Cambodia and the suppression of the Khmer people. Most ASEAN members are making great strides economically, and there is genuine hope for greater stability and cooperative progress in Southeast Asia. The world owes the ASEAN countries, particularly Thailand, a debt of gratitude for providing humanitarian aid and asylum for the hundreds of thousands of homeless Cambodians, Laotions, and Vietnamese fleeing Hanoi's repression.

As you know, the Republic of the Philippines is the cause of some concern at the present time. Overall the Government is confronted with a number of serious challenges. There is concern over the strength of the political structure, the viability of the Philippine economy, and the capabilities of the Philippine Armed Forces. Despite the current turmoil, our ties with the Republic of the Philippines remain strong. U.S. forces based in that nation today serve as a clear signal of America's intent to remain in the Pacific and they are integral to honoring our treaty commitments and our ability to maintain deterrence in the region.

I do not, however, want to gloss over the substantial problems being experienced in Manila. The Republic of the Philippines is strategically important, and given our interests and historical ties with that nation, I am particularly concerned about the growth of the insurgent movement and the state of the Philippine Armed Forces. We should recognize those difficulties and demonstrate our concern through continued support to the Philippine people in order to stabilize their economy and assist in the strengthening of their armed forces. We must also realize that this will probably require us to expand our current assistance programs for a protracted period.

Our relationship with New Zealand is presently encountering some difficulty. The current New Zealand labor government's "nuclear free" stand runs contrary to the U.S. policy of neither confirming nor denying the presence of nuclear weapons on board men-of-war. A recent decision by Prime Minister Lange has, in effect, closed off our naval access to New Zealand ports. This policy, in turn, calls our ANZUS relationship with New Zealand into serious question.

I do not see how the United States can support its security commitment to New Zealand when our forces are constrained in this manner. It is even more difficult to understand how New Zealand can expect to be seen as supporting ANZUS given such a decision.

Despite this shadow over ANZUS, our relationship with Australia remains close and strong. The range of military cooperation between the U.S. and Australia is an important element in both our global and Pacific defense posture. Australia also contributes importantly in a variety of other ways to the maintenance of regional stability and security. Especially significant is the role which Australia has played in supporting economic development, and encouraging regional cooperation and consultation among the Pacific Island States.

THREAT DEVELOPMENTS

In the Pacific region as in all other areas of the world, our greatest threat remains the Soviet Union. The Soviets cannot be satisfied when they look toward the Pacific and see the dramatic emergence of Japan as a world economic power with close ties to the United States. Neither can they be pleased with the economic and military progress made by the Republic of Korea or the developing relationship between the PRC and the United States. Moreover, the Kremlin's involvement in Afghanistan and its assistance to Vietnam continue to erode its political image and are costly drains on the Soviet economy.

On the other hand, Russian leaders have not stood still or looked the other way. They have been watching carefully the evolution taking place in the Pacific and are determined to increase their influence in Asia—if necessary using their military strength. Their Far Eastern buildup has been dramatic and persistent across the board. First, they have continued to improve their strategic strike posture which now poses a significant threat to most of Asia as well as to United States maritime and land-based forces in the northern and western Pacific. Similarly, their Pacific Fleet has grown to be the largest of their four fleets. Moreover, they have been placing a great deal of emphasis on developing support facilities in South Yemen, Ethiopia, and Cam Ranh Bay.

The latter offers a warm water port with significant support facilities some 2,200 miles south of Vladivostok. An average presence of 20-25 ships in the South China Sea indicates that the Cam Ranh facilities will be used as a forward staging base for power projection into the South China Sea and the Indian Ocean. Additionally, the Soviets continue to increase their use of air facilities in Vietnam. They have introduced up to 20 Bears and Badgers. Not only are they conducting long range reconnaissance with Bear D aircraft, but they are carrying out antisubmarine warfare operations as well. Their most recent investment includes the delivery of approximately a dozen Mig-23 Flogger all-weather fighters. This is an important upgrade in the air defense of Cam Ranh Bay. In essence, I conclude that the Soviets are there to stay and plan to use this facility on a routine basis for the indefinite future.

North Korea remains the principal threat to Republic of Korea interests. Although Kim Il-Song professes peaceful intentions and insists that his government maintains only a modest military force, the picture I see does not support his rhetoric. Pyongyang continues to expend roughly 25 percent of its gross national product, at great sacrifice to the economy, on an already massive military structure. As a result, North Korea enjoys a clear numerical advantage over the South in almost every aspect of combat strength. The North Korean Armed Forces total approximately 880,000. Over 700,000 personnel constitute the regular Army. There are also about 100,000 special purpose troops, comprising the world's largest unconventional warfare force. North Korean Army doctrine concentrates on mobility and firepower, employing Soviet tactics of thrusts by armor, complemented by special force operations in the rear areas of the enemy. Currently, North Korea is estimated to have approximately three times as many tanks and assault guns as the South.

The North Koreans are also placing emphasis on developing mobile, combined armed forces, and they have recently relocated a number of these units closer to the DMZ. The end result is that the North's capability to stage a surprise attack has been considerably enhanced. New and improved weapons systems are being produced by their indigenous arms industry and introduced at a rapid pace into field units. Additional new aircraft and naval vessels have further enhanced their combat capabilities. The increase in scale, tempo, and offensive nature of recent exercises also throw some doubt on Kim Il-Song's peaceful intentions.

To the South, Vietnam's relationship with its Indochinese neighbors—Cambodia and Laos—is one of authoritarian domination. Vietnam has friendship treaties with both countries and has an estimated 40,000 troops in Laos and some 170,000 in Cambodia to prop up the Hanoi-installed governments. In turn, Vietnamese assistance in the construction of major civil projects in both countries has led to increased dependence on Hanoi. I expect Vietnam to maintain strong influence in Indochina as long as the Soviet Union continues to underwrite its activities with large amounts of aid.

Additionally, the unprecedented severity of the Vietnamese attacks on the Cambodian refugee camps during the current dry season offensive is particularly disturbing. We should not forget the pain, suffering, and loss of life being inflicted upon these innocent people. These actions are especially destabilizing because they pose the danger of direct confrontation between Vietnamese and Thai military units.

USPACOM FORCES

Soviet military improvements in the Asia-Pacific area continue to put a premium on nuclear deterrence, the ability to attack targets effectively from great distances, the sustainability of our forces, and the capability to defend our sea lines of communication and base network. In the current world situation, the United States simply cannot operate without an effective nuclear deterrent. This is my highest priority bar none, since without a credible nuclear force our national security would be at risk.

We have been improving our overall military posture in the Pacific and it is clear that our defense programs have been given much needed support in recent years. I am grateful to the Congress for the progress that we have made in the Asia-Pacific region.

During the past year we have seen the introduction of modern equipment and new weapons systems. Theater war reserves, ammunition, sustainables, and petroleum stocks are all improving, but the effort must continue because we still have a considerable way to go to meet our requirements. The nearly 360,000 men and women assigned to USPACOM are as good as any I've seen in over 40 years of service. Our soldiers, sailors, airmen, and marines are professional in every sense of the word. It's hard to be pessimistic about the future of our country when working closely with the fine young men and women in our services.

In spite of the quality of our service personnel, the improvements in materiel, and the introduction of more modern weapons systems, I believe we should not, and cannot, become complacent. Because of the improvements our potential adversaries have made, we must keep pace while moving toward our long range objectives. This requires consistent defense policies and programs; there is no substitute for a strong and enduring security posture.

THE BUDGET

I am gratified by Department of Defense efforts in the formulation of the budget that you are considering. It is, in my view, a judicious balance of programs which we require to maintain a strong defense. At the same time, it must be stressed that it is one step in a long process structured to correct our security deficiencies and to strengthen our deterrent posture.

As a theater commander, I am naturally concerned with what is on hand now, because I might be called upon to fight at any moment. On the other hand, I cannot lose sight of the need to keep pace with modern technology and the requirements for advanced weapons systems and munitions (on which we count so much) to counter the numerical advantages enjoyed by our potential adversaries. With limited resources and dollars, we simply cannot satisfy simultaneously in one year all of the immediate and long-term requirements. Put in that light, the defense programs in the 1986 budget achieve an appropriate balance between the CINCS' current and future needs. That was true last year, and the current submission is another step in the right direction.

Although not a direct theater concern, I would emphasize at the outset that we must maintain the momentum in improving our strategic arms posture. As I have consistently stressed, we cannot fight successfully (conventional or otherwise) from a position of nuclear inferiority. Therefore, I strongly support those initiatives in the budget that address nuclear modernization and the strength of the strategic deterrent.

I will group my remaining remarks on the budget in the four categories that I believe are familiar to you; sustainability, readiness, force structure, and modernization.

SUSTAINABILITY

Theater commanders are particularly sensitive to sustainability needs because they are charged with being prepared to conduct operations at any time. Unquestionably, neglect in this area during the Vietnam period resulted in serious deficiencies across the board. Over the last few years increased emphasis in the services' POMs and the DOD budget has resulted in positive strides which have markedly raised on-hand stock levels. As a result, our ability to wage combat has greatly improved. However, this is not a simple problem given the continuing introduction of new weapon systems and munitions. Shortages of essential warfighting items still remain to be addressed and the fiscal year 1986 budget is another important step in correcting the deficiencies.

While I strongly support all of the sustainability items in the budget, a few categories deserve special mention. The Navy and Air Force have included funds in this budget for "threat oriented" air-to-air missiles, and the Army and Marines are funding improved conventional artillery munitions to continue the progress made on our prepositioned war reserve stocks. In my view, these programs must be protected.

Sophisticated air-to-air missiles are essential if we are to fully realize the potential of our newest aircraft and yet this is where we are most deficient. Further, the slippage in AMRAAM delivery has added additional urgency to the AIM-7 and AIM-9 acquisitions. Expense and manufacturing capacity are limiting factors in air-to-air missile buys and it will be several years before we are well. It is essential that we procure AIM-7s and AIM-9s pending AMRAAM delivery. We must also devote some atttention to our war reserve stocks. There exists a critical requirement to procure additional conventional artillery ammunition such as 155mm and 8 inch improved conventional munitions, as well as Copperhead, to strengthen our warfighting capability.

We also need to fully fund the spares and repair parts programs which enable us to continue combat for a prolonged period of time. The Air Force budget takes a quantum step in this regard and the Navy a lesser one. From the unified commander's perspective these initiatives are critical. Also, I am encouraged by the services' and the Defense Logistics Agency's stress on improving petroleum product levels, but we are not yet where we need to be and must not slacken this effort.

Military construction programs are extremely important. I am especially concerned about storage facilities for petroleum and ammunition stocks. As we move toward attaining our fuel and ammunition war reserve objectives, we also need storage facilities which are strategically positioned to support our wartime requirements.

Last year DOD included 1.7 billion dollars for procurement of wartime hospitals. In order to have these assets available when needed, some of them should be prepositioned in the theater in a "turn key" mode. Consequently, I urge your support for funding for construction of hospital and medical storage facilities.

The proposed budget addresses my major sustainability needs. The progress we have made in this area is very real, but so is the ever-increasing threat in the Pacific Theater. Soviet modernization and force structure enhancements levy new requirements which absorb a significant portion of that progress. I seek your continued support for sustainability programs in this budget so that we can maintain the momentum which is so critical to our efforts. This support will enable us ultimately to attain stock levels which will permit us to be ready to meet military challenges without limiting combat decisions by logistics constraints.

READINESS

As I mentioned, the men and women in our services are the finest I have ever seen. The percentage of high school graduates entering service continues to climb, but reenlistment appears to be leveling off. With the decreasing pool of eligible youth that we will face in the coming years, recruiting and retaining well-qualified personnel become even more important. In turn, reasonable compensation and quality of life programs have a direct impact on both signing and retaining high caliber people. To sustain our personnel readiness, we need to increase the emphasis on enlightened personnel policies and programs, and in the process insure that commitments to service people, once made, are kept. Your past support in this regard is most appreciated and your continued backing is vital.

Another important area that deserves your close attention is that of end strength. The Army plans to hold the line and that will have no adverse impact in my command. The Navy, however, is hard pressed to keep up its readiness posture under current end strength limitations especially with new ships and aircraft coming on line. The Pacific Command will be directly affected. We cannot afford to sail ships with skeleton crews. In the same vein, a modest growth in Air Force and Marine Corps end strength is imperative to man new programs currently being funded. The full potential of new weapon systems can only be realized if the necessary operating and maintenance personnel are also authorized.

While I would prefer additional monies in operations and maintenance accounts, I can make do with the proposed program—if it is cut no further. Improved materiel readiness is necessary and can be attained with the funding provided in the budget for procurement of replenishment spares and repair parts, equipment maintenance and modification, and other logistical support. The flying hours for the Army, Navy, and Air Force in the fiscal year 1986 budget are adequate but even slight cuts would impact on training and safety and thereby jeopardize our fighting edge. Also, the funds allocated this year to ship modernization and fleet maintenance will finally get an alarming backlog under control and permit a quantum step forward in naval readiness. In my opinion, reductions in the proposed levels of operating funds would create prohibitive risks in the Pacific.

I understand the impact of the many competing national priorities you face in your deliberations and recognize that slashes in the O&M account show quick results. But substantial reductions in readiness also result from such cuts and the get-well period is disproportionately lengthy and in the end more costly. I plead that this committee not look for fiscal offsets in the area of operations and maintenance funding.

MODERNIZATION AND FORCE STRUCTURE

Modernization and force structure go hand in hand so I will discuss them as one. The Pacific and Indian Ocean basins present a different military challenge than any other theater. First, the vast distances influence everything we do. Secondly, our facilities and our allies are widely spread over islands and around the littoral. These characteristics of necessity emphasize air and naval power, long range delivery systems, air and sea lift, reliable communications, and the ability to defend individual facilities. The budget being considered today addresses many of these needs in terms of modernization and will be a firm step forward in building a force structure appropriate for many years. I will specifically mention those areas of particular interest.

Adequate air defense is one of my highest priorities as it is essential to a successful Pacific campaign. The increasing Soviet capability to fight farther from home has given this issue a new importance. I strongly support the Navy and Air Force Over the Horizon Radar (OTHR) programs because they address long-range early warning and broad area surveillance—capabilities which we currently do not possess. It is literally the first line of defense in the Pacific and my number one air defense priority. Deployment of OTHR and its integrated C3 in the Pacific will allow us to match Soviet progress. Continued full funding support for OTHR programs is imperative if we are to deter, and if necessary defeat, Russian air power in the Pacific.

Air interceptors and a long range attack capability are equally pressing issues. Modern extended range fighters, such as the F-15E (scheduled to begin production this year) and the F-16, complemented with AWACS and KC-135 tanker support, are necessary to give PACOM a theater-wide air defense capability. Moreover, these assets provide a desperately needed attack capability for striking enemy bases. The KC-135 engine refit and KC-10 acquisition programs are particularly important in this regard since tankers are vital in conquering the distances in the region. These are expensive items competing for out year funding. Temptation to achieve a reduced budget by delaying these programs must, in my opinion, be vigorously resisted.

Similarly, point defense systems are urgently needed to enhance the survivability of our Pacific facilities. Our elaborate base structure outside of Japan and Korea urgently requires adequate ground-to-air defense. Development and procurement funds provided in this budget for the Improved Hawk, Stinger-Post, and Chaparral contribute to this end and should be retained.

Additionally, Soviet modernization efforts require that I continue to emphasize theater intelligence gathering sources such as TR-1 and U-2 aircraft programs. In today's dynamic environment, real time intelligence may be the difference between success and failure.

The Navy is now on track with regard to amphibious lift capability despite the ups and downs which have plagued the program in the past. From a Pacific perspective, this important initiative is worthy of support. The ability to lift forces and to assault defended islands is a must in my area of responsibility. Without full funding, amphibious lift requirements will be in genuine jeopardy.

The submarine warfare area is where Moscow has made its most determined and sustained effort. We are now confronting a formidable array of Russian submarines and they are ranging the entire Pacific in increasing numbers. Every year the ability to detect, localize, and counter Soviet boats is becoming more complex and difficult. This year's budget acknowledges that problem and lays out a number of programs to maintain our edge. If we falter or slacken in this continuing ASW contest of wits and budgets, it could threaten our ability to operate throughout the Pacific. This would be a setback of the first order.

In a different vein, the modernization of our retaliatory chemical weapons and defensive chemical warfare equipment are of great significance both to deterrence and self-defense. You are familiar with the Soviets' warfare doctrine which treats chemical weapons as weapons of mass destruction. The Soviet Union has repeatedly used or sponsored the use of such weapons in violation of its treaty obligations. Reports of the employment of chemicals in Afghanistan indicate that the Soviets consider such weapons as an adjunct to conventional warfare. This threat dictates that we place renewed emphasis on reestablishing a credible retaliatory chemical capability. Until a global ban is achieved, we must, for the protection of our own forces, possess the capability to deter others from using chemical weapons. Moreover, it is only in this way that we will give the Soviets an incentive to negotiate toward an effective prohibition on the development, stockpiling, and use of these weapons. It makes no sense to me to give the Soviets such a lopsided advantage in any weapons area. It is, of course, appropriate to acknowledge the horrors of chemical warfare, but given the inhumane Soviet attitude toward such matters and their manifest willingness to use chemicals, it is folly to deprive our own forces of an effective deterrent. We had such a capability in World War II and gas was not used—a humane outcome in itself.

As I mentioned, our command, control, and communications (C3) posture is a prime concern of mine and needs constant attention because of advancing technology on both sides. The geographic area of the Pacific, which results in widely dispersed island communications nodes, makes our communications structure particularly vulnerable.

The administration's increased emphasis on C3, coupled with the philosophy of integrating C3 with the acquisition of major weapons systems, are positive directions which need to be encouraged. Pacific C3 programs are designed to increase survivability and enhance the capability of our present system. One of the more noteworthy strategic modernization upgrades is the replacement of the EC-130 with the E-6A aircraft to improve national command authority connectivity to USPACOM forces. This is a long overdue step in my theater and one which will permit us to realize the full capabilities of our newest ballistic missile submarines. Improvements are also needed in secure voice and data connectivity within the theater.

In the USPACOM, I am optimistic that we are making progress in improving our C3 systems. We are working on what needs to be done in a systematic and do-able fashion. Please bear in mind that this is a long range process and that the 1986 budget is important, but represents only one step of the many needed to reach the required capability. Failure to fund this year's improvements will have an adverse impact for years to come. In essence, the C3 system should be as survivable and enduring as the weapons it supports in order to command and control theater forces effectively.

CONCLUSION

To sum up, I believe our position in the Pacific today—political and economic—is strong. In turn, our military strength underwrites our success and will continue to do so in the indefinite future. I strongly endorse Ambassador Mansfield's view that the next century will be the century of the Pacific and in many ways I think it has already begun.

I am deeply concerned by the steady and determined Soviet buildup over time. If the Soviets were to gain a decided military superiority in the region it would jeopardize our entire foreign policy. We must bend every effort to insure that doesn't happen.

You and I both know that no realistic budget will fully satisfy a military commander. There always seems to be something just beyond reach that will solve all his problems. I won't pretend that the proposed budget provides for all my needs and resolves all my problems, but I am persuaded that the budget is quite well balanced, that the choices are wise ones, and it is on the right track. It doesn't call for massive force building and I'm not looking for that. However, we do need to be able to sustain our forces and the budget takes some quantum steps in that regard. As Mark Twain once said, "even if you're on the right track, you'll get run over if you just sit there." The budget needs your support and I request it.

In my view, our deterrent policy has worked well, but if it is to continue to do so, we must match the growing danger with a consistent and rational defense policy which is geared for the long term and which encourages our allies to do more in their own defense. Only with your backing will we see those necessary items appear on a schedule that will match the course of our potential adversaries, secure our interests in the region, and allow our Pacific friends and allies to continue to develop in a free and peaceful atmosphere.

Our friends in my area look for our continuing assurance of resolve, determination, and commitment to remain a Pacific power. The momentum is there and we must maintain it by providing what is necessary to sustain our military shield. I assure you that the U.S. Pacific Command will diligently continue to devote its total energies to promote stability and peace in the region—for that is our fundamental mission.

Thank you!

Senator THURMOND [presiding]. Gentlemen, there is a vote in the Senate right now. I was hoping one of the other Senators would get back before I had to leave, but I only have about 3 minutes left. So we will just take a recess for a few minutes.

[Recess.]

Chairman GOLDWATER [presiding]. OK. Sorry for the interruption.

Admiral McDonald, you may proceed.

STATEMENT OF ADM. WESLEY L. McDONALD, U.S. NAVY, COMMANDER IN CHIEF, U.S. ATLANTIC COMMAND

Admiral McDONALD. Thank you very much, Mr. Chairman, Senator Warner.

And as Admiral Crowe expressed, it is my pleasure also to have the opportunity to be here today to provide you with my assessment of the status of the Atlantic Command. And I have submitted a statement for the record, as you had indicated earlier that it be so received, and I will summarize it briefly, sir, for you and Senator Warner, with your permission.

The Atlantic Command, as the name suggests, is predominantly a maritime command. The area of responsibility includes more than 45 million square miles of ocean area over which travels the shipping containing most of the petroleum products, the strategic materials, and the other goods vital to the economies of the United States and our allies.

Over these same sea lines of communication will flow nearly all of the supplies and military equipment and reinforcement and the resupply of our wartime forces in Europe.

In a war with the Soviet Union—Admiral Crowe may object to this—but I believe that the Atlantic is the foundation upon which Allied success will be built. Since the area of responsibility is predominantly maritime in nature, my assessments are focused primarily upon the naval aspect of the Command. However, my responsibilities for conducting joint operations with the Army and the Air Force, meeting commitments with the forces in our NATO alliance, and conducting combined operations with the other allies impact significantly upon the Command's ability to perform peacetime and wartime missions.

While the Navy and Marine forces are the principal components used to carry out Atlantic Command taskings, all of the services are used to support other U.S. regional commanders, including the Commanders in Chief of the Central, Southern, and European Commands. A significant share of the current day-to-day operations are dedicated to support of these Commands.

As the Unified Commander, I have had the opportunity to participate in the development of the services programs. Budget deliberations have fully considered the realities of current and predicted future fiscal constraints. Although we continue to have deficiencies, the services' programs represent a continuing effort to maintain emphasis on the readiness of existing forces while improving sustainability and modernization.

In the next few minutes I would like to specifically address items of concern to me, and I will start with personnel.

PERSONNEL

I view our most important asset as the men and women who have volunteereed for service as members of the Armed Forces. In the more recent years we have experienced excellent retention and recruiting among our personnel, helped immensely by the support of the members of this committee and by the American public at large.

There are, however, clouds forming on the horizon. An improving economy brings with it increasing employment opportunities and the attendant competition for employees. Air Force retention is good now, although we may be seeing the first signs of a coming decline. The Navy is already experiencing a worrisome loss of pilots to the airline industry.

Career decisions are influenced by a number of factors, including compensation, family considerations, and job satisfaction. Our personnel are aware of and understandably uncomfortable with uncertainty surrounding expected retirement benefits. Retirement security is an integral part of our total compensation and is a strong motivational factor in our retention efforts. Perhaps changes will have to be made in the system. However, before doing so, we should examine most objectively all of the alternatives and their potential impact.

I strongly endorse some type of grandfathering consideration be given to any future changes in any retirement legislation.

READINESS AND SUSTAINABILITY

Correcting ordnance deficiencies is my number one priority readiness and sustainability issue. Congressional support and funding over the past 4 years has been the prime factor in reversing the downward trend in ordnance procurement, and we have made significant progress. However, we still have a long way to go. Because of the lag in the procurement production pipeline, ordnance funding initiatives of recent years are just now beginning to have a significant impact in the field. Out-year funding must be preserved if we are going to reap the benefits in the future.

We must continue to improve our capability against new generations of quieter and more capable Soviet submarines. The Soviet attack submarine threat continues to grow without any signs of abatement. In the past, we have relied upon our technological advantage to compensate for our lower number of assets. However, the Soviets have been rapidly closing the quality gap, and I am no longer comfortable with our technological edge.

NUCLEAR ATTACK SUBMARINES

The nuclear attack submarine remains our best anti-submarine weapon system. The Atlantic Fleet is short of the number of submarines required to carry out our forward minimum risk maritime strategy. However, the Navy's program for a future submarine class, SSN-21, in its design phase right now, has the promise of providing us with the capability to maintain a qualitative edge over the Soviets. Your support to keep this program and the currently planned production rate of the 688 class on track is vital.

We continue to observe Yankee class ballistic missile submarines operating close to our coasts. From these areas in the Atlantic there would be only short warning times from missile launch to missile impact in Washington. These deployments are apparently part of the Soviets analogous response to the employment of U.S.

cruise missiles in Europe. The threat will be increased in the near future when the Soviets begin deploying the new SS–NX–21. This long-range land attack cruise missile could be deployed in the Victor III class submarine which we have observed operating off the Atlantic coast.

Key factors in solving the sea-launched cruise missile problem are reliable and accurate locating data on the launching submarine, emphasizing our need for enhanced undersea surveillance systems. We simply must maintain a viable detection capability across the entire spectrum, from sensitive initial indications and warning systems to the expansion of our underwater acoustic systems.

CUBA AND THE CARIBBEAN

Although the major thrust of Soviet warfighting capabilities is focused on Central Europe and the northern and southern flanks of NATO, I remain equally concerned with the continuing military buildup in Cuba and in the Caribbean. The Cubans continue to receive regular shipments of modern arms and military equipment from the Soviets and to export both equipment and military personnel to support revolutions in this hemisphere.

The Soviets are not unaware of the potential leverage that Cuba provides them. Soviet naval combatants, reconnaissance aircraft, and nuclear weapon capable anti-submarine warfare aircraft continue to operate periodically from Cuba. Clearly the Soviets recognize the strategic importance of this threat on our southern flank.

NICARAGUAN AID FROM SOVIETS

The Soviets are also placing arms and military equipment into Nicaragua. If high performance aircraft are introduced there, then Nicaragua will have unquestioned military supremacy in Central America and will be able to place the Panama Canal and the critical Caribbean sea lines of communication in jeopardy.

In the event of war, the Caribbean represents to my Command another front which will have to be defended. We cannot ignore a potential enemy's capability to interdict our critical sea lines of communication. However, forces dedicated to eradicating a threat from the south will have to come from the forces which otherwise would be available to reinforce Europe at the outset of any hostilities.

TACTICAL AIRCRAFT PROCUREMENT

Turning to another concern, I feel it is essential that we maintain planned tactical aircraft procurement rates. The procurement plan for the Air Force fighter force to the year 2000 has been briefed and well received by the Congress. However, I am convinced that budget pressures will restrict procurement of new fighter aircraft in the future. I ask for your continued support for Air Force tactical aircraft procurement programs.

The advanced tactical fighter research and development initiative is needed now to ensure the introduction by the mid–1990's of a fighter able to meet the anticipated growth and technological sophistication of the growing Soviet threat. Lack of funding for this

Thank you very much, Mr. Chairman, for letting me appear today along with Admiral Crowe. We now stand ready for your questions.

[The prepared statement of Admiral McDonald follows:]

PREPARED STATEMENT BY ADM. WESLEY L. MCDONALD, USN, COMMANDER IN CHIEF, U.S. ATLANTIC COMMAND

Good afternoon Mr. Chairman and distinguished members of the Committee. I am pleased to have the opportunity to be here today to provide you with my assessment of the status of the Atlantic Command.

As a Unified Commander, I have had the opportunity to participate in the development of the Services' programs. Budget deliberations have fully considered the realities of current and probable future fiscal constraints. Although we still have significant deficiencies, the Services' programs represent a continuing effort to maintain emphasis on the readiness of existing forces, while improving sustainability and modernization.

I do realize that your decisions are going to be difficult and not all of them will be popular. You will fund nothing in the budget for which there has not been compelling justification. There is a far greater need than there are resources.

THE ATLANTIC COMMAND

The Atlantic Command, as the name suggests, is predominantly a maritime command. The area of responsibility includes more than forty-five million square miles of ocean area over which travels the shipping containing most of the petroleum products, strategic materials, and other goods vital to the economies of the United States and our allies. Over these same sea lines of communication will flow nearly all of the supplies and military equipment for the reinforcement and resupply of our wartime forces in Europe. In a war with the Soviet Union, the Atlantic is the foundation upon which Allied success will be built.

Since the area of responsibility is predominantly maritime, our assessments are focused primarily upon the naval aspects of the command. However, the responsibilities for conducting joint operations with the Army and Air Force, meeting commitments with the forces of our NATO allies, and conducting combined operations with other allies, impact significantly upon the command's capability to perform peacetime and wartime missions.

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We view our most important asset as the men and women who have volunteered for service as members of the Armed Forces. In the more recent years we have experienced excellent retention and recruiting among our personnel, helped immensely by the support of the members of this committee and by the American public at large. There are, however, clouds forming on the horizon. An improving economy brings with it increasing employment opportunities and the attendant competition for employees. Air Force retention is good now, although we may be seeing the first signs of a coming decline. The Navy is already experiencing a worrisome loss of pilots to the airline industry.

Career decisions are influenced by a number of factors, including compensation, family considerations, and job satisfaction. Our personnel are aware of and understandably uncomfortable with uncertainty surrounding expected retirement benefits. Retirement security is an integral part of our retention efforts. Perhaps changes will have to be made in the system. However, before doing so, we should examine most objectively all of the alternatives and their potential impact. I would certainly endorse some type of grandfathering consideration be given to any future changes in any retirement legislation.

ORDNANCE SUSTAINABILITY

Correcting ordnance deficiencies is my number one priority readiness and sustainability issue. Congressional support and funding over the past four years has been the prime factor in reversing the downward trend in ordnance procurement, and we have made significant progress; however, we still have a long way to go. Because of the lag in the procurement-production pipeline, ordnance funding initiatives of recent years are just now beginning to have a significant impact in the field. Outyear funding must be preserved.

ANTISUBMARINE WARFARE

We must continue to improve our capability against new generations of quieter and more capable Soviet submarines. The Soviet attack submarine threat continues to grow without any signs of abatement. In the past, we have relied upon our technological advantage to compensate for our lower number of assets. However, the Soviets have been rapidly closing the quality gap, and I am no longer comfortable with our technological edge.

The nuclear attack submarine remains our best anti-submarine weapon system. The Atlantic Fleet is short of the number of submarines required to carry out our forward maritime strategy. However, the programmed procurement rate for attack submarines will help reduce this shortfall. The Navy's program for a future submarine class, SSN-21, in its design phase right now, has the promise of providing us with the capability to maintain a qualitative edge over the Soviets. Your support to keep these programs on track is vital.

We continue to observe Yankee class ballistic missile submarines operating close to our coasts. From these areas in the Atlantic there would be only short warning time from missile launch to missile impact in Washington. These deployments are apparently part of the Soviets analogous response to the employment of U.S. cruise missiles in Europe. The threat will be increased in the near future when the Soviets begin deploying the new SS-NX-21. This long range land attack cruise missile could be deployed in the Victor III class, a submarine which we have observed operating off the Atlantic coast.

Key factors in solving the sea launched cruise missile problem are reliable and accurate locating data on the launching submarine, emphasizing our need for enhanced undersea surveillance systems. We simply must maintain a viable detection capability across the entire spectrum: from indications and warning to the detection of deployed submarines, through expansion of our underwater acoustic systems.

THE CARIBBEAN AND CUBA

Although the major thrust of Soviet warfighting capabilities is focused on Central Europe and the northern and southern flanks of NATO, I remain equally concerned with the continuing military buildup in Cuba and in the Caribbean. The Cubans continue to receive regular shipments of modern arms and military equipment from the Soviets and to export both equipment and military personnel to support revolutions in this hemisphere.

The Soviets are not unaware of the potential leverage that Cuba provides them. Soviet naval combatants, reconnaissance aircraft, and nuclear weapon capable antisubmarine warfare aircraft continue to operate periodically from Cuba. Clearly the Soviets recognize the strategic importance of this threat on our southern flank.

The Soviets are also pouring arms and military equipment into Nicaragua. If high performance aircraft are introduced there, then Nicaragua will have unquestioned military supremacy in Central America and will be able to place the Panama Canal and the critical Caribbean sea lines of communication in jeopardy.

In the event of war, the Caribbean represents to my Command another front which will have to be defended. We cannot ignore a potential enemy's capability to interdict our critical sea lines of communication. However, forces dedicated to eradicating a threat from the south will have to come from the forces which otherwise would be available to reinforce Europe at the outset of any hostilities.

TACTICAL AIRCRAFT PROCUREMENT PROGRAMS

It is vital that we maintain planned tactical aircraft procurement rates. The procurement plan for the Air Force fighter force to the year 2000 has been briefed and well received by the Congress; however, I am concerned that budget pressures will restrict procurement of new fighter aircraft in the future. I ask for your continued support for Air Force tactical aircraft procurement programs.

The Advanced Tactical Fighter R&D initiative is needed now to ensure the introduction, by the mid-1990's, of a fighter able to meet the anticipated growth and technological sophistication of the Soviet threat. Lack of funding for this program would place at risk our future air superiority against new Soviet systems.

STRATEGIC CONNECTIVITY

The security and effectiveness of our SSBNs are of primary strategic importance and dictate that attendant communications systems be current and survivable. The readiness of the EC-130 TACAMO aircraft force continues to be a problem. TACAMO aircraft are old and rapidly approaching the end of useful service. Replacement of these aging airframes remains my top C3 priority. The E-6A aircraft has been selected as the replacement for the EC-130; its early introduction is essential to the maintenance of strategic connectivity with our SSBNs.

NORTH ATLANTIC DEFENSE SYSTEM

The upgrade of Iceland air defense radars is an integral part of the planned improvements in North Atlantic defense. Continued modernization of Iceland air defense is essential to the successful accomplishment of the USCINCLANT mission. The delay or cancellation of already approved modernization programs would result in a decreased capability to defend Iceland and would have a major impact upon the defense of the North Atlantic lines of communication.

Installation of an over-the-horizon radar as part of the North Atlantic defense system will provide wide-area surveillance and SLOC protection in the 1990's for the Norwegian Sea and the northeast Atlantic. Congress deleted RDT&E funds for this project from the Air Force fiscal year 1985 budget. Funding support in fiscal year 1986 is needed to place the surveillance program back on track.

RESERVE PROGRAMS

The Atlantic Command is continuing to assess the potential of the services' reserve forces to asume new missions and achieve greater integration with the active forces. The expansion and modernization of the Naval Reserve within the Atlantic Command continues with the transfer of new FFG-7's to the Naval Reserve Force; the establishment of a mine countermeasures boat unit under the Craft of Opportunity Program (COOP); upgrading and horizontally integrating aircraft squadrons, and the introduction of the LAMPS MK-I anti-submarine warfare helicopters.

CONCLUSION

As I mentioned at the outset, I believe that the fiscal year 1986 defense budget presents the proper balance between current needs and modernization which permits us to keep pace with Soviet military developments.

This year, perhaps more than at any time in recent history, you must make exceedingly difficult budget decisions which could significantly alter the future course of this nation. As you discuss priorities, options, and trade-offs, I ask that you consider the very real threat presented to us by the Soviet Union and its allies.

Thank you very much for this opportunity to appear today before the committee. I am ready to answer your questions.

Chairman GOLDWATER. I have one question before I turn it over to Senator Warner.

ANZUS

Admiral Crowe, there are a number of questions wrapped up in this one. I want to talk about ANZUS, particularly New Zealand.

What are the political and military implications of New Zealand's policy on nuclear shipping? If any of these answers are classified, say so and we will not do it.

Admiral CROWE. Yes, sir. First of all I should say that we believe by this action that the New Zealand government has certainly changed the character of the ANZUS Alliance, Mr. Chairman; that the burdens and responsibilities, as well as the benefits, should be shared equally, and that is no longer the case with the decision of the new Labour government in New Zealand.

I personally believe that they made their decision after the United States very wisely gave them time to deliberate and to understand what they were doing; and I do not think they were misled. They knew exactly what they were doing and the impact that it would have on the Alliance. And now that they have taken that decision, I believe that it is incumbent upon the United States to adjust to these new circumstances, and that is exactly what we are doing.

I would not characterize what the United States Government is doing as retaliation, punishment, or a penalty. I believe it is dictated by the New Zealand decision, and it is an effort to adjust to these circumstances and to protect our interests outside of ANZUS, as well as in the Southern Pacific. The decision to cancel exercises and to reduce some of our contacts with the New Zealand military is, in my view, an appropriate and prudent adjustment to these new circumstances which the New Zealand Government has forced upon us.

There is, of course, no intention, as I am sure you are well aware, to destroy the ANZUS Alliance.

Chairman **GOLDWATER**. Do you think what the United States is doing is the proper policy in answer to this challenge?

Admiral **CROWE**. Well, I certainly do not see how, as the U.S. military commander in the region, I could carry out defense responsibilities under the Alliance when units from my command do not have access to New Zealand ports, and when we do not have the opportunity to operate with and coordinate activities with the New Zealand forces.

It is a little difficult for me to understand how the New Zealand Government feels that the United States Government can obligate its men and women to the defense of a country that does not welcome those men and women and will not let its platforms come in to port. I must confess that this more or less boggles my mind.

Chairman **GOLDWATER**. What do you see as the likely effects of this policy of New Zealand on the other countries in the Pacific?

Admiral **CROWE**. We have had a lot of support from other countries in the actions we are taking, including South Pacific countries. The Australian Government is staunch. The PNG Government has made it clear they do not agree with the New Zealand Government action. I think these are rather characteristic and typical of our friends and allies throughout the East Asian region, Mr. Chairman. I do not think they approve of the New Zealand action. I think they believe that the New Zealand action is shattering an alliance that has not only improved the security of Australia and New Zealand, but has also more or less formed a cloak over the entire region. And many of those governments have made it clear that they believe the New Zealand action, rather than reducing the probability of nuclear war, has increased it instead. They also believe it has shattered the unity of the Western Alliance structure system at the very time when we need to stand together as we approach arms control talks.

Chairman **GOLDWATER**. Thank you, Admiral Crowe.

Senator Warner.

Senator **WARNER**. Thank you, Mr. Chairman.

Gentlemen, it is a pleasure to see both of you again.

JAPAN

Admiral Crowe, let us turn to Japan. You made a brief reference in your statement, "While we have made steady progress in the security field, we recognize that a great deal more is achievable and remains to be done. That a great deal more is achievable" is that within the present framework of their constitution, or do you feel that perhaps you do not want to get into this from the standpoint of your essentially political and military role?

Admiral **Crowe**. I believe I can discuss it in general terms, Senator.

The statement, of course, is made primarily in economic terms. Certainly, the economy of Japan can support a greater defense effort. The Government of Japan has on occasion stated that the Japanese have the responsibility to improve their own defense, the ability to secure themselves, and they have set specific goals, defense goals, such as the capability to defend their sea lanes of communications out to one thousand miles from their own shores.

You refer to the constitution. I do not believe there are any inhibitions in the constitution per se that would prohibit them from spending more on their security. The one percent threshold which you hear so much about is an internally imposed limit by the government itself. I think it was taken around the early 1980's by the government that was in power. It was an informal and unofficial thing that has sort of become written in stone in Japan. But it is not dictated by law; it is not prescribed by the constitution. That could be breached if the Government of Japan felt that it was necessary to do so.

AEGIS SYSTEM

Senator **Warner**. Now, they have expressed some interest in the Aegis system. Have you stated your views on that, particularly from the viewpoint of the technology transfer?

Admiral **Crowe**. They have certainly expressed some interest in it. However, I think they are a long way from making a decision within the Japanese Government, Senator, and they also have differing points of view within their own political context as to whether this would be a wise decision for the Japanese armed forces. These arguments primarily revolve around the expense of that weapon system, and the return on the investment. We have not encouraged them to buy that system. We have encouraged them, though, to build the capability to meet that self-set goal of defending their sea lines of communications. Whether Aegis is a proper choice for them is still an open question and their decision.

Senator **Warner**. What sort of platforms would they put it on?

Admiral **Crowe**. They have in mind a destroyer. They do not have cruisers. It would probably be a newly designed platform.

Senator **Warner**. I would assume as much.

Now, your colleague there I think was very unequivocal with respect to supporting an improvement to the TACAMO situation. Do you feel equally as strongly about the need to upgrade that capability—hopefully utilizing the E-6A?

Admiral **Crowe**. We have the Trident weapon system in the Pacific now, and one of the improvements that I mentioned in the communications or the C3 portion of my summary was specifically the E-6A.

I believe two things: That first of all we need the reliability which that modern communication system would afford us; second, because of the vast distances in the Pacific, we need the range of the new TACAMO aircraft. And when we have that, we can then fully realize the potential which the new Trident submarines offer us.

Senator WARNER. Of course, at this present time we recognize we are not realizing that potential, and also we are stretching the legs on an old-timer.

Admiral CROWE. That is correct.

COMMUNICATIONS AT SEA

Senator WARNER. Admiral McDonald, we in this committee went into some discussions with the land force commanders with respect to the lack of communications interoperability with our allies at the tactical level. What about at sea?

Admiral McDONALD. Senator Warner, as you well know, we exercise significantly at sea in the NATO environment. We conduct a major at-sea exercise every year with as many as 250 ships from most of the littoral nations of the Alliance that provide ships to SACLANT participating. There are some deficiencies that exist. There are obvious work-arounds that take place in today's world. We are making progress in interoperability among all NATO forces. We probably have more problems with data information systems transmission than we do in pure communications systems.

I would say that the communications systems within NATO are adequate. With continued interoperability attention they will improve over the long term. One of the major problems, of course, is that of trying to bring on line new technology from countries that have the capabilities to do significant research, development and test and evaluation, such as the United States, while not overdriving the capabilities of some of the other nations who cannot get into that degree of sophistication. There have to be other complementary and/or backup systems. We have to adjust, not necessarily to the weakest link in the chain, but we have to take into consideration how we will accommodate all NATO nations as we progress.

As you well know, the two-way street is always an issue, and when most of these systems are coming from the United States and not from some of the other Alliance nations, there is a perception that they are being forced to participate wholly in the equipment side of the house with U.S. systems and not their own. That situation is gradually improving, though, throughout the Alliance, and specifically in some areas where the German and the British navies continue to lead the way in areas that are very, very helpful to us.

SUBMARINE ASW ROLE

Senator WARNER. Turning to the submarine ASW role, as the Soviets continue to progress in speed and quieting, what offsetting measures are being taken to ensure that we continue to maintain that degree of surveillance that you deem necessary?

Admiral McDonald. We are trying to continuously upgrade our sensors by making them more sensitive. We are placing new arrays in more critical areas. We have come on line with the long-range towed array ships and have put tactical towed array systems on our surface ships. We have increased our sonobuoy sensitivities. We have basically done those things that will continue to meet the threat in the near term.

That is not to tell you, Senator, that on any given day that we have complete confidence, especially with the quieting that is taking place, that we can determine the location of every newer submarine in the Atlantic at any one specific time. But we are making those kinds of inroads into these areas. We have requested again that the sensors continue to be modernized, and we think that the SSN-21 program, which the Navy has instituted, will be a significant step in an attack submarine that is quieter and has more capabilities than the 688 class, and will provide that kind of a quality offset in technology to counter that which the Soviets are developing.

Senator Warner. Let us look at a time frame of a decade, 1975 versus 1985. How would you quantify your ability to have submarine surveillance today as opposed to 10 years ago?

Admiral McDonald. I think it has been reduced significantly. In some of the talks I make of an unclassified nature, I point to the fact that the technology spread 10 years ago may have been this big between U.S. systems and Soviet systems [indicating], but today with that transfer of technology, whether it be covert, in open literature or whatever the case may be, that spread has dramatically narrowed. We see the Soviets building quality equipment and putting it to sea. I am sure that General Rogers will tell you the same thing on the land side of the house that he faces in Europe. The technology gap is rapidly closing, and there is no place more dramatically that we see this happening than in the Soviet submarine force.

Senator Warner. Would you care to try and quantify it? How much in a decade has it depreciated?

Admiral McDonald. That would be very difficult, because we have at the same time upgraded our capabilities to meet that threat. But I would say we have probably lost about half. And that would be a very rough estimate, Senator.

Senator Warner. And, of course, that would be, Admiral Crowe, comparable in the Pacific, I presume?

Admiral Crowe. Yes, sir. We have witnessed the Soviets in a very deliberate fashion obviously try to correct their deficiencies and their vulnerabilities. They are doing it. Our ability to counter that threat is getting less and less.

Senator Warner. Thank you, gentlemen.

Senator Thurmond [presiding]. Senator Glenn.

Senator Glenn. Thank you, Mr. Chairman.

ORDNANCE DEFICIENCIES

Admiral McDonald, you mention on page 4 of your testimony, I believe it is, that your No. 1 problem is ordnance deficiencies. Would you elaborate on that a little bit?

Admiral **McDonald**. Senator, we have over the years been suffering from inadequate stocks, particularly maritime stocks, and shiploads. Phoenix missiles were an example several years ago where we had just enough to load out one air wing on a carrier for one strike, and after that it was going to be very difficult where the next would come from.

Admiral Crowe made the point in his statement that AIM-9's and AIM-7's were in short supply. We are talking air-to-air munitions in all of these cases I am citing to you, but there were other areas. Harpoon is just beginning to come on line in large numbers and obviously has not built up to the stocks that it should be.

These were the areas that I was concerned with, along with torpedoes and sonobuoys, which help us to locate the submarines I have just been discussing with Senator Warner.

In this interim, we have seen significant funding go into remedying some of the systems and some of the stocks. If the funding remains in the out years, many of the systems that I am concerned with—Sidewinder, Phoenix, Harpoon—although not getting totally well, will in fact guarantee that we will have a magazineful on most of our ships by about 1988. The Air Force will enjoy at least enough munitions that they can continue to operate in my theater of operations for a reasonable period of time. With the productivity lag of about 2 years from the time of funding until you get the stocks in hand, by the end of the 1980's we ought to be in a pretty good situation. And I would see that concern beginning to at least be lessened during the FYDP years.

Senator **Glenn**. If we stay with it.

Admiral **McDonald**. If we stay with it.

Senator **Glenn**. And that is so crucial, Mr. Chairman, this whole area. We buy the beautiful big gray ships, and we put them out there, then we do not put enough munitions on them to guarantee that they can fight the war they are built to fight.

Admiral **Crowe**. And aircraft.

Senator **Glenn**. And aircraft. And it is so silly. And it may be pennywise now, but it is absolutely pound stupid for the long-term future.

NUCLEAR ATTACK SUBMARINES

You mentioned some of them. Another one is that we have spent billions and billions of dollars on nuclear attack submarines, and you mentioned at the bottom of page 4,"The nuclear attack submarine remains our best anti-sub weapons systems."

Now, they carry Mark-48 torpedoes, and although the exact figures are classified, I think it is unclassified that I can say right here in open hearing that the number of torpedoes we provide for those submarines are well less than two loads, considerably less than two loads if we go to sea and fire the torpedoes. You do not have a full load left for everybody when they come back in for the next trip out, if that would be needed.

I think that is a correct figure. We spend billions and billions building submarines and then do not provide enough torpedoes to make sure that they are actually going to be able to function if war comes.

Admiral McDONALD. Admiral Crowe and I, again as the unified commanders, the people who are going to fight the battle today or tomorrow, are primarily concerned with readiness and sustainability. Force modernization and force building certainly are built into it because we may not fight today or tomorrow, which I certainly hope we do not. Therefore, some place down the road there has to be a place for new systems coming on board. But you will find that both he and I support everything you are saying, Senator, relative to those kinds of initiatives, and that is why we feel so strongly about the fact that those initiatives that are in the defense budget must be maintained if we are going to maintain any kind of momentum to keep up with the new equipment that is coming in.

Senator GLENN. As you say, the attack submarine remains our best anti-sub weapons system, and that is anti-sub against cruise missiles and short-range nuclear missiles and ballistic missiles.

Admiral McDONALD. It is against everything the submarine carries.

Senator GLENN. This is our best weapon against subs, yet we do not even provide two full loads of ammo for them to go out and do the job they are supposed to do. I think that is so preposterous. If anything, we should have extras instead of being niggling over how many of them are going to get two loads.

CAPTOR MINES

Another one I wanted to ask about in the fiscal year 1986 budget, as I understand it, the President's budget does not include any funds for continued production of the Captor mine. Is that correct, number one? And does that give you some concern, both of you?

Admiral McDONALD. Senator, I think that is correct. I think the Captor mine program has been interrupted at about 2,200 mines, or a figure in that range. Those figures are classified. That is probably approximately one-half to two-thirds of what the program was basically planned for several years ago.

Yes, it does bother me significantly.

Senator GLENN. Well, as I am advised, the 1985 production will provide for an inventory that falls 30 percent short of the basic CINC's priority of approved mine fields. What do you do if you do not have them?

Admiral CROWE. Use other kinds of mines. We do have a considerable inventory, particularly when you include our allies, of older mines and conventional mines. In all fairness, when we state that the Soviets have so many mines, we are talking about mines dating from World War I to today. We dread and fear that capability. When we have an obsolete mine, we tend to discount it as if it is not worthwhile. That is not totally true. Old mines will kill you. They are not as good as Captor mines, and they are not as good as what we prefer, but we and our allies do have mines. The question is whether they will be in condition to go, and whether we will be able to employ them in the way we want.

Senator GLENN. As far as total inventory, I understand that the 1985 production will provide for an inventory of Captor mines that is only 59 percent of CNO authorized inventory objectives, and that leaves us very much short.

JAPAN'S SELF-DEFENSE EXPENDITURES

One other comment, Mr. Chairman. You commented about Japan's self-imposed limit of 1 percent on defense expenditures. In my previous incarnation on the Foreign Relations Committee I have been to Japan many times and have given speeches in Japan on that subject trying to get them to exert more effort on their own behalf, whether it is because of their constitution that you mentioned which provides for no offensive operation, or of their one percent of GNP self-imposed limit. But I think when we try to push them too far, we get into some considerations of other people around the Pacific who do not want to see them have a thousand mile capability, which causes some nervousness around East Asia that has not been erased from World War II days, I guess. I know this from talking to some of the heads of state of other nations in that area.

But one of the areas I have pushed the Japanese on or tried to, was for them to assume more of U.S. operating expenses out there. I think that is one way they could spend more on defense, by helping us, and still not violate their own constitution. Maybe they even could stay within that 1 percent, although I think that is a ridiculous figure for them to be sticking with.

But, for instance, reimbursement for our steaming time money that keeps the sea lines open to the Persian Gulf and benefits mainly the Japanese. And then there is base support in Japan, they could pick up all of that. Ship overhaul maintenance, they could pick up a bigger load on that out there for us.

Now, that gets into a number of billions of dollars. Have you ever looked into that or considered that as part of what we should be doing out in that part of the world, or what the Japanese should be doing in that part of the world?

Admiral CROWE. Well, it is a continuing subject of dialog with the Japanese, Senator. As you well know, they do help us in certain categories. We get considerable support in construction but not offensive systems, which is a guideline imposed by their own government.

Perhaps one of the main difficulties in the assistance they provide us is that funding is part of the defense budget. It would make a certain amount of sense to me if it was a different category under their accounting system and did not come out of their defense budget. Consequently you get some resistance from those groups in Japan that do not necessarily want to help us, and you also get resistance from some of our friends who want that money to go into their own weapon systems. Obviously they suffer when more money is put into our construction needs.

This is going to be a continuing debate. I suggest we keep the pressure on and we must be persistent and consistent in the way that we feel to be most productive. The real question is not whether Japan, from our standpoint, should spend more. I think we all agree that they should. It is what is the best method to get them to defend themselves.

Senator GLENN. That is very good. I appreciate that. I know my time is up. I would only note in closing that the total annual Japanese defense budget, everything —I believe this is correct —is approximately the same as the cost for procuring one carrier task force that we provide. In this country it is around $14 or $15 billion. I believe that is approximately correct, is it not?

Admiral CROWE. I am not sure. I could check that, Senator and we would be glad to furnish that for the record.

[The information follows:]

Senator GLENN. Is the cost of a carrier task force equal to what Japan spends annually on defense?

Admiral CROWE. The Japanese budget for their 1985 fiscal year is just under $13 billion. Today's procurement cost, in fiscal year 1985 dollars, of a carrier task force, including support ships and embarked aircraft, is just over $16 billion.

Admiral CROWE. But just let me say that I am a strong believer in what I just said. They should spend more. On the other hand, when you have a GNP the size of Japan and you spend 1 percent of it, it is still impressive—they are the eighth country in the world in defense expenditures in absolute terms. They do have a number of expenditures that are not included. You know, most countries in the world try and exaggerate how much they spend on defense. Japan takes a lot of time telling you that they do not spend so much on their own defense. If they did their accounting the way we do, it would be more than 1 percent—not much but some.

Senator GLENN. Thank you, Mr. Chairman.

Senator THURMOND. Admiral Crowe and Admiral McDonald, we are very pleased to have you here, and we welcome you to Washington.

I want to say I recently had the pleasure of meeting with Admiral Crowe in Hawaii on a return trip from Taiwan, and South Korea, and Japan, and I enjoyed my discussions very much with him at that time in discussing some of the matters pertaining to his region. Admiral, the weather here in Washington is better now. It reminds me somewhat of the weather we experienced in Hawaii out there.

Now, Admiral McDonald, this morning General Gorman testified that Cuba was the source of a large part of the turmoil in Central America. Does that same assessment apply to the Caribbean portion of your area responsibility?

Admiral McDONALD. Absolutely, without any hesitation at all. Cuba is a significant threat to the Atlantic Command and the stability we should be providing in that area.

BINARY CHEMICAL WEAPONS

Senator THURMOND. Admiral Crowe, one of the most serious issues facing Congress this year is a decision concerning funding binary chemical weapons. No other issue besides nuclear weapons causes such emotional debate or is fraught with as many misconceptions as the subject of chemical weapons. Therefore, it is very important that you make clear to the Congress and the public your perceptions concerning binary weapons.

Now, I believe you have made a statement in the report you made today about it. I want to ask you both this question. What happens to your ability to conduct combat operations if you are attacked with resistant chemical agents?

Admiral **Crowe**. Mr. Chairman, if I could address it first, I would say that we would operate at a tremendous handicap throughout my region. Not only can chemical weapons be used in ground operations, but they can also be used to attack bases, ships, and air operations.

If we cannot deter those attacks and have to suffer through them unilaterally, not only do we suffer tremendous casualties, but it severely limits our ability to conduct any kind of wartime operations. We spend a lot of time gaming and a lot of time simulating various scenarios, et cetera, et cetera. It is important to have such simulations where one presumes on the part of the Soviets a capability that we do not have. The results are disastrous for our forces.

It sort of boggles my mind that we would permit a potential adversary to have that kind of capability and enjoy such a lopsided advantage. You know, the most terrifying weapons in our inventory are nuclear weapons, and in that case we use a deterrent policy, but we refuse to use a deterrent against chemical weapons. I cannot understand that.

Senator **Thurmond**. I feel frustrated myself as a member of this committee, because I remember distinctly during World War II the enemy had chemical weapons and was ready to use those weapons, and if we had not had weapons to counteract theirs, I think they would have used them. But they did not use them because I think they knew that we had weapons that we would use against them.

Admiral **Crowe**. I find it curious we have such a valid example of success in deterrent use of those weapons, and we do not profit from it.

CONDITIONS IN THE PHILIPPINES

Senator **Thurmond**. Admiral Crowe, I wanted to ask you a question about the Philippines, but do not answer it if in any way you feel it would be harmful to the relations with the Philippines and our country.

Many people in this country are concerned about the conditions there, and the question is what you feel will happen there if the present conditions do not change? And if you feel comfortable in answering that, do; otherwise, do not.

Admiral **Crowe**. I will attempt to in a general way, Mr. Chairman. Of course, it is fraught with uncertainty. The simple answer is I do not know what would happen there. They are beset currently with political and economic problems which must be sorted out if we are to have stability in the region. They understand that. We have seen some encouraging signs in the last few months. I think the last election which the Philippines underwent showed that the roots of democracy probably run deeper than we had ever anticipated that they would. But that does not mean that the transition process is fully taken care of or is guaranteed.

There is a great need for the building of institutions in the country that will ensure the survival of democracy. There is a great need for economic institutions that tend toward a free market with benefits and advantages which the free market offers in terms of economic viability and help. I think there is great room for improvement in the security area so that they can protect themselves from military threats.

This is a problem in which the United States, given our own vested strategic interest there and our long historical ties with the Philippines, must take more interest. I think we must seek ways to help the Philippine people resolve those difficulties. It is a very thorny issue, and I am afraid that we are in for quite a bit of trauma before it is all sorted out.

INSURGENCY PROBLEMS IN THE PHILIPPINES

Senator THURMOND. Do you feel that there is any chance that the Philippines could develop an insurgency problem as serious as the Government of El Salvador faces?

Admiral CROWE. To begin with, the Philippines already face an insurgency problem. It is not as serious as the example that you cite. It is growing. It presents a challenge to the government. I do not think it is the current strength of the insurgency that is most worrisome. The most distressing aspect of the insurgency is its rate of growth. Within the last 12 months we have seen it increase in alarming numbers. And I must admit that this is not necessarily related directly to the appeal of Communism in the Philippines so much as some of the other problems which plague the country. There are some abusive practices, corruption, and maladministration which tend to drive people to seek other solutions and in some instances to join the insurgency.

I do not see the insurgency in the Philippines in the near term as an alternative to the current government no matter what happens. But if that insurgency continues to grow and to thrive at its current rate, in a number of years it could become a very definite threat to order and to the government in that republic.

Senator THURMOND. Now, Admiral, if events in the Philippines did take a grave turn for the worse, and it appears that a group hostile to U.S. interests will come to power, what would be your recommendation to the President concerning our military bases there?

Admiral CROWE. Senator, to begin with, that is a very tough question.

Senator THURMOND. Do not answer that if you prefer not to.

Admiral CROWE. Let me put it a little differently. I must confess to you that I do not see in the near term the insurgency overthrowing the government in the Philippines or being a viable alternative to the present government. There are a number of elements of opposition to the current government, but most of them, I believe, are part of the democratic process and are attempting to influence events in the Philippines through a democratic process.

There are some elements in the opposition that are anti-American, but I think they are very small in number. While no particular element of the opposition springs out, I believe from my own knowledge, that most of the responsible elements and those that oppose the present government are pro-American, and I believe that they would not want to see, for example, our facilities closed or our access denied. I cannot imagine a responsible government coming to power that truly and genuinely wanted to sort out the

Philippines' economic and social problems and would want to at the same time sever its connection with the United States Government.

LESSONS LEARNED FROM GRENADA

Senator THURMOND. Admiral McDonald, has your command developed any lessons learned from Grenada that should be shared with our other unified commanders?

Admiral McDONALD. Senator, there are some lessons to be learned, of course, in any sort of a joint operation such as that, which was the only significant joint operation that I can recall that we have had in recent years where we were in actual combat.

One of the major areas of concern was communications, and that has been discussed in reports to the other unified commanders and to the Chairman of the Joint Chiefs of Staff, and we are working to rectify those weaknesses that we did find in some of our communications capabilities.

There has been a sort of a watchdog type of staff that has been placed over interservice developments of communications systems to make sure that they are interoperable with each other, and this will go a long way into solving some of the problems we saw on Grenada in the early stages.

PEOPLE'S REPUBLIC OF CHINA

Senator THURMOND. Admiral Crowe, when we spoke last you had some very interesting insights about the People's Republic of China. Would you care to elaborate for the committee on this subject?

Admiral CROWE. Well, Mr. Chairman, I took a very interesting trip to China. I was part of General Vessey's party when he visited the People's Republic. We had the opportunity to not only talk with a number of the Chinese military and civilian leaders, but also to witness Chinese troops in the field, visit with the Chinese air force and go aboard some of their naval ships. It was a most enlightening and in my view enriching trip.

I had the impression there is a great reservoir of friendliness in that country for the United States. I also had the impression that their priorities, which we are well aware of, are not changed. They are primarily interested in economic development as opposed to military expansion, although they want to modernize their armed forces and are in the process of doing so.

To achieve the kinds of things they want, they would prefer stability, they would prefer peace in that part of the world, and they are willing to work very hard at it. They believe that a friendly relationship with the United States will enhance those prospects. We received that distinct feeling.

There is no question in my mind that they are very concerned about the Soviet menace, and in a certain respect they feel surrounded. Not only do they have some 53 Soviet divisions on the northern border, but they have seen the Soviet occupation of Afghanistan as well as the thorn in their side, Vietnam. So their outlook on the world is one of unease. I got the distinct impression that they derive a closer relationship with the United States—and

I am not talking in the sense of an alliance or anything of that nature—a closer and friendlier relationship, particularly one that permits them to profit from western technology, credit, and trade. It would be to their advantage as well as to the advantage of the entire East Asia region.

SOVIET MINE WARFARE CAPABILITIES

Senator **THURMOND**. I have one last question here for both of you. How serious a threat are Soviet mine warfare capabilities in your areas of responsibility, what are the United States' deficiencies in the field of countermeasures, and what is the Navy doing to support you in this area?

Admiral **McDONALD**. The Soviet capability to mine is very significant in the NATO area, Senator Thurmond. That part is the same part of the Atlantic that the Atlantic Command is responsible for. In any kind of coalition warfare where my command is responsible for the reinforcement and resupply of men, equipment, and POL to Europe, it is not enough just to escort and/or see the safe passage of those ships from the North American continent to Europe. The real challenge will be to get those ships safely unloaded in the ports in the North Sea, maybe France, wherever we can possibly offload these ships in harbors that could very easily be mined by the Soviets.

The Soviets have a significant mine-laying capability in their surface ships, their submarines and in their aircraft. As such, they pose distinct threats to our reinforcement and resupply. Their mining of the entrances to the Norwegian Sea, although the depth of water sometimes does not accommodate all of the mines that they are capable of laying, will pose threats to our naval combatants passing into the Norwegian Sea as they attempt to contain the Soviet northern fleet and the Warsaw Pact navies in that area of the world.

The Soviets are estimated to have approximately 350,000 to 400,000 mines. A lot of those are old mines from World War II days. But a lot of them are new mines with degrees of sophistication that are equal to those that we and our allies are developing.

Highlighting what our weaknesses are: we face a lack of the numbers of mine countermeasure ships, the numbers of ways of sweeping these mines or rendering them inoperative in the areas in which we will be challenged. The United States until just recently has been woefully inadequate in forces that are dedicated to mine warfare. That is being changed. We are moving ahead in a mine shipbuilding and countermeasures program in which there will be a modest improvement in the near time frame.

Our allies are increasing their mine countermeasures capabilities. The Dutch, the French, and the Belgians are in a Tripartite mine hunter type of mine effort. The French have a significant underwater mine seeking device which transmits video images of objects on the bottom, and you can see whether you have a mine.

So we are making some progress, Senator, but we are way behind in mine countermeasures, and it is going to take a long time to catch up.

Senator THURMOND. Admiral Crowe, do you have anything to add?

Admiral CROWE. My own mine warfare problems are certainly not on the scale of the Atlantic Command's, Senator. We do have some areas in Northeast Asia where we anticipate that we will be both mining and conducting mine countermeasures, looking for mines and attempting to sweep them, et cetera. We have plans to do that, and we have taken a number of measures within our own organization to improve our capability to deal with those problems.

My major deficiencies are in the area of mine hunting and mine countermeasures. This is a capability that for a few years in the 1970's was neglected by the Navy. It is encouraging to me that we are now concentrating more in that area, and we are beginning to see in this budget important steps to correct that deficiency.

I should say that Japan has a respectable mine laying force and a mine hunting and mine sweeping capability, which we hope to rely on in defending Japan.

Senator THURMOND. Thank you.

Senator Cohen.

Senator COHEN. Thank you very much, Mr. Chairman.

NEW ZEALAND

Admirals, I am sorry I missed your opening statements, but I read both of them. And, Admiral Crowe, in particular I would like to thank you for your comments concerning New Zealand. I know that there was some question raised in this country as to why there was such a reaction on the part of the administration or the Congress to what is taking place, and I notice Mr. Lange was in Los Angeles last night giving a speech which I found somewhat disingenuous in that he said New Zealand is principally justified by its state's right to refrain from arming itself with nuclear weapons and not to be threatened by such weapons. And, of course, that is not what the United States is seeking to do at all. That is why I found the argument disingenuous. And he is off apparently today on his way to London, and he is going to engage in a debate on Friday with Reverend Falwell.

Now, I am not sure how that came about, and I do not know how much Reverend Falwell knows about military or naval strategy; but I suspect since the argument has been raised to a level of morality that Reverend Falwell is probably more than capable of carrying on this dialog. It has nothing to do with military policy. Ironically enough, the New Zealanders have struck a very moral posture which undermines the very goal which they are seeking to establish: the prevention of nuclear confrontation or exchange. I think their action has undermined our ability to help keep those sea lines of communication open, and it also undermined our ability to help keep their economy prosperous.

As a result of their action I introduced a resolution, which you may or may not be happy about. As of an hour ago there are 50 cosponsors in the U.S. Senate going on record as saying, No. 1, the administration should continue to negotiate with the New Zealand Government to see if it can resolve the impasse that has arisen; No. 2, pending that negotiation, we should explore the possibility of operating on a bilateral basis with Australia; and No. 3, we should preclude New Zealand from sharing in military exercises, which has also been the policy of the administration today; but No. 4 should go one step further, and that is, because the New Zealanders as an ally have benefited over the years from not only our protective shield as such but because we do help keep those sea lines open, they share economically, and we have traded with them on a basis which indeed is preferential. For example, they signed an agreement back in 1981 in which they indicated they would terminate the subsidies which they now give to their producers. They would terminate those subsidies as of March 31 of this year.

In my judgment they should be terminated as of that time, and the New Zealand Government is seeking to extend that preferential treatment for 2 or 3 more years. Frankly, I believe that to the extent that they are undermining our ability to maintain free access to the shipping lanes of the world, they should not seek to have it both ways. They cannot undermine that ability and at the same time ask for preferential treatment.

We are not seeking economic sanctions. We are not seeking trade sanctions. We are simply saying that if you are going to remove and diminish our ability to help protect the free world, you should not really expect preferential treatment. And so it has nothing to do with sanctions or picking on anyone, but it is simply putting them in the neutral position they have adopted.

I saw a very interesting piece on CBS Evening News the other evening, and it was, of course, fascinating. It showed a beautiful country with lots of sheep and lots of very attractive people, and one woman in particular, who was blue-eyed, white-haired, and healthy as could be saying we are trying to set an example for the world to follow. She omitted saying that it is for the free world to follow, because apparently this nonnuclear virus is something that has spread to the free nations of the world, and somehow the Soviet Union and its allies have developed an immunity from it, and that is indeed what the danger is.

There is a way of achieving the goals that we all seek, and that is a reduction in the levels and hopefully the abolition of nuclear weapons. The way to do it not by taking unilateral action in the West and psychologically and physically disarming ourselves while the buildup continues in Cam Ranh Bay, and indeed, right nearby in Havana which is currently going on.

I want to thank you for writing me a letter of support for the effort, and I am happy to say that most members of this committee have joined in its co-sponsorship and a good many more Democrats as well as Republicans. I think it is important not to simply characterize this as a big nation dealing with a small nation, but rather trying to tell the rest of our allies that actions have consequences; and that you really cannot expect the United States, which is taxing its people to the tune of $300 billion plus in defending the world, to turn a blind eye to actions which are undermining that ability by its allies.

ASW CAPABILITY

Now, having made that little speech, I would like to move on to something that you came to testify about. Admiral McDonald, in your statement you talk about ASW capability. In your judgment have the Soviets made any significant progress in nonacoustical ASW capabilities?

Admiral McDONALD. Not that we can see, Senator. Nothing that is going to be so shattering that our present systems will be subject to survivability problems in the future.

We see them continuing to explore areas of nonacoustical ASW, but we do not see any great payoff on that at this time. We would like to assure you that we have tried many of those things that we see them trying, and that road is not very fruitful.

C-17 R&D

Senator COHEN. Admiral Crowe, the C-17, the R&D effort is now up to about $330 million for fiscal 1986, and I think Secretary Weinberger has approved full-scale engineering and development, total R&D and production of about $39 billion. How will the C-17 be employed in your theater of operations?

Admiral CROWE. Senator, in my area the vast distances put a tremendous premium on airlift of any kind. We are a long ways from reaching what we feel is the goal that the military should be at of 66 million ton miles per day.

I can hardly do anything in my region where lift does not become a limiting or constraining factor in hostilities. I must support every quantum airlift improvement.

Senator COHEN. Are there any substitutes for C-17 that you are aware of or would be appropriate?

Admiral CROWE. In the current inventory, you mean, without building and so forth? I do not see any substitutes right offhand. Of course, the main way to compensate for that problem would not be budgetary actions but to give a bigger slice of the lift pie to the Pacific. Given the realities of the world situation and the priorities this country would follow in major warfare, I doubt if that is likely, at least not in the near future. That colors my view.

SONOBUOYS

Senator COHEN. Let me ask you about sonobuoys. We reduced the funding in this year's budget for sonobuoys relative to last year. Do you have enough for wartime needs?

Admiral McDONALD. Enough is a hard question to answer, and I am not dancing, Senator. But we do not have enough sonobuoys to act in peacetime in all areas of training that we would like to.

As has been discussed a little earlier, there is funding in the total program in the out-years that will improve the sonobuoy situation, the inventory, so that given the full run of the FYDP, that we will be in pretty good shape on sonobuoys.

I do not have enough sonobuoys today to do the things that I would need to do if something should happen tomorrow, and I think that probably exists in the Pacific, too.

Senator COHEN. Thank you very much.

Senator **Nunn** [presiding]. I will call on Senator Denton next.

Senator **Denton**. Senator Thurmond asked me to act as chairman if Senator Cohen left.

Senator **Nunn**. You can either serve as chairman or ask questions or both. I was just going to defer to you on questions, and I will catch up.

Senator **Denton** [presiding]. Well, I will have to act as Chair since he told me to, Sam. I will defer to you on questions now, unless you want to prepare some.

Senator **Nunn**. I would prefer you go ahead. I really do. Thank you very much.

Senator **Denton**. Well, let the record show that I am entirely objective with these two gentlemen. [Laughter.]

I understand that one or the other of them admitted that they are the only two members of a certain Naval Academy class still on active duty. I am a classmate of theirs.

Admiral **Crowe**. We did not say working, Senator. We said on active duty. [Laughter.]

Senator **Denton**. You took my next line, Bill. I was going to congratulate you guys for still making an honest living. But I must note that the real living made by Admiral McDonald is on the tennis court, where he is a hustler. [Laughter.]

And Admiral Crowe will have to appear before the Security and Terrorism Subcommittee, which the Washington Post likes to call the resurrected Un-American Activities Committee, because he has a Ph.D. in politics from Princeton. They are both very sophisticated and sound Naval officers indeed, and I hope we do not take them too seriously. [Laughter.]

NEW ZEALAND AND SURVEILLANCE ACTIVITIES

Admiral Crowe, pursuing Senator Cohen's question, how do you view the New Zealand Prime Minister's threat to stop contributing to the surveillance activities in his part of the ocean? Would you consider that a major operational loss?

Admiral **Crowe**. I certainly take his statement, which I saw in the paper this morning, seriously, Senator. I suspect that he means to do that. We get some information from the New Zealanders, and we profit from the surveillance they do, but it is very limited, and I do not anticipate that it will impact heavily on our operations.

HOMEPORTING IN THE GULF

Senator **Denton**. Admiral McDonald, as you know, we have some parochial interests down there on the gulf regarding homeporting of certain major surface units. I will not go into that here. I would, however, like your overview of the benefits of homeporting in the gulf, and perhaps anything you might offer in the way of operational considerations.

The well-known shallowness of some of the water there, does that outweigh the advantage of being closer to the operational area of contingency? How do you look upon it yourself?

Admiral **McDonald**. Senator, there are some obvious benefits, and there are some things that have to be looked at very, very carefully in any kind of a move like that. As you are well aware sir, the U.S. Atlantic Fleet, as a part of the Atlantic Command, is primarily concentrated in Norfolk, Mayport, Charleston, with the submarine force significantly in the New London-Groton area.

The continued growth in the fleet toward the 600-ship Navy, which on projections will be attained in fiscal year 1989, is very heartening, I am sure, to both Admiral Crowe, and myself, and to our naval components—I happen to be my own component, which works out very well from that standpoint. The growth pleads for probable greater dispersement than in just those three particular areas that I have cited to you.

The Gulf of Mexico offers an obvious area for us to expand or to put other parts or other units of the Atlantic Fleet in that area. There are some drawbacks on that. If you look at the major threat as only being in the Atlantic, you just move the fleet further away from the response area where it has to transit. If you look at the Caribbean as certainly one of our areas of concern, which I assure you it is, then it is a very viable option.

So I think we will continue to look carefully at this basing option. Again, I am speaking of a Navy program here and not as a joint commander specifically. But from the Navy's standpoint, we are continuing to investigate the feasibility of what ports can offer the necessary kind of naval facilities, as well as good harbors so that ships can transit fairly rapidly in and out of port. You do not want to be tied up for long, extended sea and anchor details while transiting to and from port.

I think that it is a very prudent initiative at the present time. There are other things, though, that have to be folded into it, and that, of course, is the ability of the selected areas, or the competing areas, to accommodate not only the equipment and the port facilities to operate a surface force, but the ability to house the crews and dependents. I would like to highlight that.

The new areas need to be looked at with the view of how well they can absorb the significant, new military group of people living there. The facilities are already in Charleston, in the Mayport, and Jacksonville complex, Norfolk, and in New London. The question is how well can you trade off the dollars for the military construction and the other support facilities that go into those other ports. But strategically, it makes sense.

Senator DENTON. I know that for a while you at the CINCLANT fleet were the headquarters involved in the comment on the decision and so on. Now that the matter appears to repose in the Secretary of the Navy's office, would you have any more comment or input about the selection, say, and the suitability of a tentative selection? Are they going to run it by you for comment, or are they just going to go ahead and make the decision themselves?

Admiral McDONALD. I think the factors I have been discussing on the strategic side will come through. The final decision, as you have indicated, will be made at the Secretary's level.

Senator DENTON. As you know, there is some political tension involved with the recent cut down to a certain six ports still eligible to receive the Surface Action Group. I have assured the constituency in my State that, from what I know of Secretary Lehman and in my overall impression of the Navy, Secretary Lehman would scarcely yield principally to political pressures rather than operational and financial considerations.

Could you buttress that view?

Admiral McDONALD. I would say you have said it very well, Senator.

FUNDING OF BATTLESHIPS

Senator DENTON. There is an issue regarding the battleships. I was recently with a Senator who is in an appropriate position over on the Appropriations Committee to give us a problem respecting the continued funding of battleships.

I will have you gentlemen know that it was a thesis which I wrote at the Naval War College in 1963, as an operational paper, which is credited with being the genesis of the reactivation of *New Jersey*. I am aware, as you are, that carrier admirals were behind the move to get battleships back. I was relieved to find that *New Jersey* did come into effect in Vietnam. I was credited by Navy Times for a role in the debate on the floor, changing the tide of it to get those battleships back in. *Wisconsin* would probably be the likely choice for that surface action crew.

That particular Senator, who may give problems, says that he is hung up on the fact that the Navy did not proceed through phase 2 of the modernization, in other words replacing the after-turret with missiles. Had they done that, he said he would have no problem, but now he has a real problem. I do not know why we did not go ahead with phase 2. Perhaps we could not get the money.

Could either of you offer some support for the battleships as presently configured, because we still have to go on with the funding of *Wisconsin* which would probably be in the SAG in the Gulf.

Senator THURMOND [presiding]. Senator Denton, we just have 4 minutes on this rollcall. I am going to have to go. Do you want to stay, or do you want to go and answer the rollcall?

Senator DENTON. Whichever you say, Mr. Chairman.

Senator THURMOND. I think you are needed for this vote, so why do we not take a recess until we can get back. And if Senator Nunn gets back before we do, just tell him to go ahead.

[Recess.]

Senator DENTON [presiding]. The hearing will resume.

Admiral McDONALD. Senator, following up on your question, I do not have the rationale at hand that canceled phase 2 of the armament enhancement program on the *Iowa*. I will provide that to you. I did find in the short break that it was canceled. I would offer that it was probably done for fiscal constraints and also to move that ship into operational status at an earlier time because of the success that we had with *New Jersey* and the need to come on line as quickly as possible with an equal type of capability in the Atlantic Fleet.

[The information follows:]

BATTLESHIP REACTIVATION

As envisioned in the original battleship reactivation concept, a Phase II weapons and C3 upgrade was to be scheduled for accomplishment during the battleship's first overhaul. The alteration package was never specifically defined, but was intended to increase aviation capabilities, increase the cruise missile capability, and upgrade command and control systems. Decisions to incorporate this phase were delayed pending the completion of an operational assessment of the USS *New Jersey* in her present configuration.

The assessment was completed in late 1983 and the Secretary of the Navy determined that in her present condition, USS *New Jersey* has met or exceeded all battleship operational requirements in each major mission area. Because of this success, the Secretary concluded that the upgrades were not required and planning was terminated. Material improvements will continue as part of the fleet modernization program.

Senator DENTON. That Senator mentioned that *New Jersey* only spent a year over in 'Nam, and I was not in a position to gainsay him. I did not recall, because it was there only a year, if it was out of targets or something like that. Of course you and I can both recall a lot of targets that we lost a lot of planes on, targets that *New Jersey* could have done a better job on and I am sure did.

Is there any impression that you can recall that she did not do a valuable job in Vietnam?

Admiral McDONALD. None that I can recall. I would defer to Admiral Crowe who was working in the area and saw some of it from that part of the house.

Admiral CROWE. I cannot support that statement.

Senator DENTON. And in Lebanon I guess her presence was important also?

Admiral McDONALD. It was very important in Lebanon.

Senator DENTON. The Senator is a friend of mine; he just has different figures from a different staff. He is talking about the tremendously expensive maintenance of a battleship, which was a notion that had not been reported to me before.

I guess if either of you have had that ship under your operational control, maybe one or the other of you could give me some kind of data on that.

Admiral McDONALD. I will have to provide it to you. It is not my impression that there are tremendous maintenance costs of operating the *Iowa,* which is in the Atlantic Fleet. Obviously, the operating cost and the fuel burned is more than we see in our average destroyer cruiser type; and so I will have to provide that information to you.

Senator DENTON. Well, since each of you has a BB, how about both of you giving me figures on that?

[The information follows:]

BATTLESHIP OPERATING COSTS

Atlantic Command

Admiral McDONALD. From our experience to date with USS *Iowa,* the annual operating costs for a battleship are approximately $18 million. These costs include fuel, repair parts, consumables and other operating expenses; not included in this figure are the costs for personnel.

Pacific Command

Admiral CROWE. The estimated fiscal year 1984 operating cost of a battleship is $18.7 million. This figure includes fuel, repair parts, utilities and other operating expenses, but does not include manpower costs.

Admiral CROWE. I know the *New Jersey's* record on station, the 300 and some days she spent in Lebanon, was amazing. She had no major system malfunction.

Senator **Denton**. Just a general question. What is the best single thing that we might do or not do in this sometimes mischievous body to help you respectively? And that is a hard question, but often we stick our noses into things we should not. There is one proposal to reduce the defense budget by cutting hundreds of thousands of civilian workers. The Senators who are making the proposal are the same ones who required the hiring of many civilians by passing laws for an inspector general for all of the services and things like that.

What, congressionally, would you like to see changed for the betterment of your respective situations?

Admiral **Crowe**. Well, Senator, I do not know that I could say what I would like to have changed so much as I could cite a couple of what are very pressing and important problems in my region. I think the Senate and the House could play a very important role, and as a matter of fact do to a certain extent.

PROBLEMS FACING PHILIPPINES

I was asked a question earlier this afternoon on the Philippines, and the Philippines are facing some very important and profound problems. The United States is seeking ways to approach these problems. For example, I am always asked as a military commander of what my view of the insurgency is and the state of the Philippine armed forces, et cetera. But as the U.S. Government begins to grapple with the Communist insurgency problems, it obviously encompasses a great deal more than a military response or reaction. In looking for suitable ways to help or sort out these kinds of problems or approaches, or to get you to embrace these problems, you must really talk in terms of political roots, in terms of social and cultural difficulties that have inspired the problem. You must talk in terms of economic solutions.

I as a military man can say that. However, I do not have a great deal of credibility in these countries talking about those subjects. I think a representative or legislator from our country does.

NEW ZEALAND PROBLEM

Senator Cohen mentioned the New Zealand problem, and he has engaged himself very heavily in the New Zealand problem. There are many things that people in other countries do not understand about our governmental system, and this has become obvious in New Zealand.

The administration can do certain things and make certain commitments and lay out certain courses of action, but the fact remains that we operate in a very pluralistic system of government. I can go down and explain that in New Zealand. However, I do not have the credibility that a U.S. Senator or a Representative would have in talking about their role, the impact that they can have, their interests, and that the Congress of the United States is very definitely a player. And yet, that is essential to any kind of ultimate solution in those kinds of problems. It is essential that New Zealand understands it and that the electorate of New Zealand understands it.

I am not proposing a coordinated approach in any sense of the word, but it is certainly a role that I think is both proper, appropriate, and helpful for this Congress.

CENTRAL AMERICAN PROBLEM

Senator **Denton**. I have spent a lot of time on the Central American problem in that context. As both of you are aware, no matter whether you are speaking in the uniform of an admiral or in the suit of a Senator, you cannot erase such impressions as their perspective on the United States becoming a somewhat uncomfortable friend or ally, an unreliable one, because of things like our cop-out in Vietnam and our refusal to give the Shah of Iran a place to die after his efforts to work with us.

I do not know whether Admiral McDonald is in touch with the political situation down there in Central America but it is certainly a deep reality. For example, the Mexicans are intimidated by the fact that Castro controls the activities among their oil and gas workers unions, and if the United States is not going to reliably help them, they know that Cuba can do what it will, and do a lot more at will.

U.S. INCONSISTENCY

That's the whole poison of U.S. inconsistency. I was amazed—not amazed but, I guess, comforted to hear Admiral Crowe say that the Vietnam thing has not taken us 20 years to get over. I still feel that we are in the throes of some of the confusion that was wrought during that particular time, and I guess you share some of that. Your emphasis seems to have been on the increased trade and better relations with the Asian nations, the major Asian nations, Japan, and perhaps prospectively with the P.R.C.

Admiral **Crowe**. I do not think we have dispelled all the suspicion or doubt about our credibility and constancy, but we have dispelled the bulk of it. We have done it in a much shorter time than I would have earlier predicted.

Senator **Denton**. Well, that is good to hear, and I am sure Ronald Reagan had a lot to do with that. But Congress has not exactly been terribly resolute. There is no question that the vote on the MX will have an effect on the arms control talks, and there is no question that further resolution on the part of Congress toward Central America and so on will affect the situation that you and I are now addressing. So I am worried about it.

I have finished asking questions, Senator Nunn. May I leave it with you while I go vote?

Senator **Nunn**. Certainly. That is fine.

Senator **Denton**. Thank you gentlemen.

Senator **Nunn**. And with your permission, do you want me to go ahead and start asking questions?

Senator **Denton**. Yes, sir, if you will.

Senator **Nunn**. All right. Is anybody else coming when I get through?

Senator **Denton**. To ensure that you have a partner of the opposite party, I will come back.

Senator NUNN [presiding]. I will wait until you get back and keep the hearing going then.

I would like to welcome both of you here, Admiral Crowe and Admiral McDonald. I have read your statements. I think I am caught up with your testimony, and I appreciate very much you being here. I regret I could not be here for the first part of the hearing. We have got a lot of things going on. There are a lot of wars being fought around here at the moment.

PHILIPPINE SITUATION

Admiral Crowe, in your prepared statement you discussed the situation in the Philippines and its potential impact for U.S. national security. A couple of questions on that point.

Is there a direct relationship between the problems that President Marcos obviously has politically and the progress being made by the insurgents?

Admiral CROWE. There certainly is a relationship, Senator. How direct it is I am not sure I can determine. But there are a couple of aspects.

I think there is no doubt that since the Aquino assassination the attention of the government has concentrated on the Manila area and some of the more immediate problems probably to the neglect of the rural administration. I believe that some of the people that are going to the NPA and to the CPP are doing so because they are dissatisfied with the administration in the rural areas and feel that the NPA is a better alternative, not because of the natural attraction of the Communist philosophy.

Similarly, there is no question that because of the economic problems which are beleaguering the Philippines that the support for the Philippine armed forces has been cut back drastically. Even after the money is appropriated, it has not necessarily been funded or given to the forces themselves. And this has, in turn, reduced their ability to deal with the insurgency. and that has in turn given rise to more insurgency and more uncertainty.

Senator NUNN. How much territory do the insurgents control now? I know there are hundreds of those islands there, but in terms of territory, how would you describe their control?

Admiral CROWE. Estimates of course vary, depending upon where you sit and also how optimistic or how pessimistic you are. I think one or two things distinguish this insurgency. It is not exactly a successor to the Huk movement, but is of a little different character.

One of the things unusual about it, we believe it is operating in every major sector in the Philippine Islands. Of the former Communist movements that was not true. It has obviously concentrated in northeastern Mindanao, for example, where they have quite a bit of power. I think in some of the barrios the NPA has actually established its rule. What percentage those are is very low and I do not know the exact figures. You find varying degrees of control in other areas.

Senator NUNN. Have you got any real feel for where the outside support is coming from and to what extent it is coming, if it is?

Admiral CROWE. Senator, we do not have solid evidence for external or outside support. It is one of the characteristics that is unusual about this insurgency.

Senator NUNN. Where are they getting their arms?

Admiral CROWE. From two or three sources. First of all, from extortion where they can actually set up shop in a community and insist that the community, in return for safety, security, protection, et cetera, furnish arms. They can buy arms on the black market and do, and they can capture arms in engagements with government forces.

Senator NUNN. You imply in your statement that the Philippine army is not doing very well. What is wrong with it? Is it mainly underfunding, undersupply, or is it not the right kind of training? What are the problems?

Admiral CROWE. I would say underfunding is the main problem. And I would like, Senator, if we discuss it much more than that, to do it in closed session.

Senator NUNN. All right.

JAPAN

On the Japanese situation, I think there have been improvements in the last 4, 5, or 6 years. I remember when we had almost no exercises with the Japanese, no real close military cooperation. We have the joint statement that was issued several years ago, and I understand we are implementing that. And then we have got their thousand mile commitment.

Has that been reiterated by the Nakasone government?

Admiral CROWE. Yes, sir. That is an objective set by the government. I hope there is no confusion, though. They do not have that capability currently.

Senator NUNN. I know it is a goal.

Admiral CROWE. It is a goal, yes, sir.

Senator NUNN. In your opinion, what percent of their GNP will be required to meet that goal? Let me phrase it another way. Will they be able to meet that thousand mile goal as stated by their own government if they continue to adhere to the 1 percent limit of their gross national product on defense?

Admiral CROWE. Certainly not in the reasonable term, Senator.

Senator NUNN. So they have got two goals that are incompatible. One is the thousand mile, and the other is the 1 percent limit on military spending as a percent of GNP. Is that a fair statement?

Admiral CROWE. That is essentially correct.

Senator NUNN. Do you see any real change coming in the next 2 or 3 years on the 1 percent rigidity?

Admiral CROWE. It is difficult to estimate, but yes, I think as I said earlier, it is not a constitutional or a legal prohibition. It is self-imposed. To give a very personal opinion, I believe that threshold will be breached.

Senator NUNN. They breached it back in the 1950's, many years ago, did they not, and then came back to it.

Admiral CROWE. The goal did not exist, or the threshold did not exist before then. But it was set, I believe I said earlier, in the early 1980's, but that is not right. It was in 1976 that the Japanese government——

Senator NUNN. What are the main deficiencies they have now, just in general terms, in terms of meeting their own goals?

Admiral CROWE. Let me say in a more balanced way that, with our encouragement they have put their emphasis up until this point in both their maritime forces and their air defense. They have built a fairly respectable air defense capability in their JASDF, and they have put to sea modern and sophisticated ships with very well-trained people on them. Their airplanes are flown by people who are very capable and who can operate in today's modern environment.

Their most glaring deficiency, of course, is in the sustainability area. They have some modern munitions but in small numbers. If they were engaged in hostilities and those hostilities were protracted, they could not support it.

The Japanese Government has recognized this, and you see in the most recent budget a marked change in the way the budget is apportioned, with, I think, some 25 or 30 percent increase devoted to sustainability items. I believe that will continue. The Nakasone government has made it clear that it is going to emphasize that.

Another area which has been neglected due to funding constraints has been the ground forces of Japan. I think we are all putting more strategic attention into the defense of Hokkaido. There is a serious question as to whether the Japanese have that kind of capability and as to whether they should not be making major improvements in their ground forces, particularly those in the northern part of Japan.

I would like to see a great deal more joint operations. And I am not referring to Japan-America; I am referring to the Japanese armed services themselves between the various branches. I think that the returns would be synergistic and that they would derive great benefit from more joint operations.

Senator NUNN. How about their general force structure in the Air Force and Navy? Has that got to have significant increases?

Admiral CROWE. Again it is a tradeoff, Senator. I would like to see some real progress made in sustainability. They are continuing small buys in the air force. Although the budget is now shifting towards sustainability, they are going to buy additional F-15's, but in modest numbers.

I would like to see more, but before they can do the kinds of things that I might prefer, they have got to spend more money. I think they are doing very well in the ship business.

GRENADA

Senator NUNN. Admiral McDonald, shifting to another part of the world, your responsibility, Grenada, how would you describe the shortcomings, looking back on the Grenada operation, and how would you describe the shortcomings we now recognize in terms of lessons learned from that operation? That is question No. 1.

And question No. 2: What are we going to do about it, or what do you recommend that we do about it?

Admiral McDONALD. I think the major shortcoming, Senator, was in our ability to carry on not only secure communications but other tactical communications within units that were operating there, and within the Navy units which were offshore.

Those weaknesses have been addressed, as I explained in an earlier answer. We have established within the JCS environment a watchdog sort of—I would have to use the term "committee"—but group who watches closely the interoperability of any of our services procurement or development systems, such as communications, to make sure that it will work with other services' systems, and if not, that there is a degree of ensured interoperability in any future developments in those systems.

Senator NUNN. Would you not have thought that would have existed in the past?

Admiral McDONALD. Yes, sir. And I think it did to a degree, but obviously we did not pay that much attention to it.

Senator NUNN. Is that because we have separate services with separate procurement orders, and does it have anything to do with the CINC's not having much effect on procurement, or is it something that would have happened no matter what?

Admiral McDONALD. That is a difficult question to answer, Senator. Obviously, we should have been paying more attention to it. We should have been looking at it. I think it was one of the things that got lost in some of the procurement programs and was not seen then as a significant detriment nor a significant weakness in joint operational procurement. Obviously it was.

Senator NUNN. All right. What else?

Admiral McDONALD. Seriously, communications was the major shortfall.

Senator NUNN. How about the intelligence?

Admiral McDONALD. Intelligence, as far as tactical intelligence was concerned, was realistically about what we could expect. If we had more intelligence devoted to Grenada such as human intelligence, we could have learned a little bit more than we had.

I do not think the intelligence system broke down, Senator. I think it was just a matter of again not concentrating on it. Grenada took place relatively fast. We saw a continuing development as far as Cuban interests were concerned in Grenada with the development of Point Salinas airfield. As far as the overthrow of the government, though, it came rather rapidly, with it the imposition of martial law. Following that, the chance to obtain further informational intelligence was very, very limited. We just did not have enough at the time to satisfy the tactical commander on the ground. I do not think we will ever satisfy the tactical commander with all the information he would like to have.

Senator NUNN. Even when the President months before is on public television identifying an air field in this area as a threat to U.S. security interest?

Admiral McDONALD. We were watching that development from the overhead sensors and through that type of intelligence, Senator, and we knew the progress on the airfield. But when you got down to the location of what kind of triple A guns might be used by the Cubans that were there, what the war fighting capabilities the Cubans had available to them through their worker force, then we just did not have that specific kind of tactical intelligence available to us.

Senator NUNN. All right. How about the problem we talked about before—and I think you were going to go back and take a look at this— about the actual military personnel on the ground when they landed near the airfield or on the airfield not knowing the location of the students in the second dormitory, and not even being alerted to that except by a phone call from the students themselves. That seems to me to be a huge intelligence gap.

Admiral MCDONALD. That is basically true. The fact that the students were at two different campuses and were living at the Grand Anse campus as opposed to living at the True Blue campus was something we had not pursued. Obviously there was a weakness there, knowing just where all the students were living. Some of them lived in the community rather than living in what was a rather meager dormitory environment. Some of them lived in local homes throughout the peninsula.

Senator NUNN. We did not even know about the second dormitory where there were a hundred of them living, as I understand it.

Admiral MCDONALD. That is correct.

Senator NUNN. Now, do you think that is something that we ought to look at from a policy point of view, or that we ought to accept as just beyond our capability, and that if we have another situation like that, we should expect that kind of intelligence gap, or is it something that was a fault of the system?

Of course, you see what frustrates me is I cannot seem to get anybody to pin down the responsibility of how that even happened, because the intelligence community says that they gave that information and passed that information through, and yet there seems to be yet no accountability. Has anybody traced it down as to what went wrong?

Admiral MCDONALD. Senator, I do not have the answer, and I will get you the answer to that as to where that unraveled at that time.

When the first troops landed on Point Salinas, the initial objective was to secure the True Blue campus, which was right at the end of the runway, the eastern end of the runway. That was accomplished within a period of an hour or thereabouts. It was at that time that the people on the ground realized that not all the students were located at True Blue. They found out that they were in fact located at another campus. We identified where that was, but then were unable to extricate them as quickly as we had those students located at True Blue.

Senator NUNN. And the truth of it is they could have all been killed one by one before we ever got them out of there had the Cubans and Grenadan forces intended to or wanted to.

Admiral MCDONALD. Those who were at the Grand Anse were obviously unprotected at that time, as were those at True Blue until, of course, we came in.

Senator NUNN. Well, was it 36 hours, 48 hours before they were secured?

Admiral MCDONALD. Senator, I would say it was about 36. I think we got the students out of Grand Anse at about 1400 or 1500 the next afternoon. We landed about 6 in the morning.

Senator NUNN. Well, the frustrating thing to me—I do not know how many months away; I have lost track of time—but I asked the same question a year ago, and I have yet to get any kind of explanation as to how our intelligence community can contend that they had the information and that they gave it to the military, and the military can contend they never got it. There has got to be a gap in there, and there is something wrong, and somebody ought to be accountable.

And I am not saying run out and try to fire somebody. I am just saying that if there is not accountability on something that glaring in the military system, how can we feel confident that there is accountability in the military system? I mean here we are a year later, and still nobody can tell me.

Would you undertake that, Admiral?

Admiral McDONALD. Yes, sir, I will.

Senator NUNN. To find out what the gap was, and how it went wrong, and what we can do about it in the future. Otherwise, we may have a repetition of it if nobody knows why it happened. How have we cured it for the next go-round if we have another one?

Admiral McDONALD. I will go back and research it and provide you chronological data as to what we had available to us, and show you what my recommendations would be.

[The information follows:]

USCINCLANT was aware of the location of the students at True Blue campus. We were not aware until late on October twenty-fourth (D-day minus 1) of the existence of a second campus at Grande Anse. Beyond that, we were not aware of the location of those students who lived in houses on the local economy. Many of these houses, we subsequently learned, were located on the Lance aux Epines peninsula.

Although the existence of the Grande Anse campus may have been known to Washington area intelligence agencies, and while some imagery available in Washington prior to 24 October may have been annotated to show"Grande Anse" campus, USCINCLANT received no written or verbal reports of the existence of a second campus and no one can recall seeing any imagery which was annotated showing a second campus until 24 October. With regard to the existence of student housing areas on the Lance aux Epines peninsula, we were not aware of this until after the rescue of the students at True Blue campus. To my knowledge, the intelligence community was never aware of this third location.

In answer to your question on where the information on the Grande Anse went, I do not know. It was not received at USCINCLANT in any useable or identifiable fashion prior to 24 October. USCINCLANT immediately turned the information around by message to our subordinates, but communications difficulties and the fact that many of the units which could have used this information were actually enroute at the time precluded this information arriving in the hands of the ground forces before they learned of the existence of Grande Anse campus from their own interviews of students rescued from True Blue.

I cannot answer the question of what went wrong and why with regard to the non-receipt of information pertaining to Grande Anse prior to 24 October. I can only conclude that communications between Washington and USCINCLANT were not what they should have been. The lesson learned here is that closer liaison with the Washington area intelligence agencies will be required in the future. Toward this end, I now have a CIA permanent representative in place on my staff; the Director of DIA also plans to provide a representative with his own dedicated communications capability to augment my staff in the case of future contingency operations. I think this should preclude similar breakdowns in communications.

In further answer to your question on how to prevent this type of breakdown in the future, I feel the key missing ingredient was not intelligence but rather noncombatant evacuation information. The intelligence community is precluded from collecting information on the activities or locations of U.S. citizens abroad. Keeping track of their locations for emergency evacuation purposes is the function of the State Department, and each Embassy is charged with maintaining an up-to-date non-combatant evacuation operations (NEO) plan. We are working closely with the

State Department to ensure that all NEO plans pertaining to countries in my area of responsibility are updated.

Senator NUNN. We spend billions and billions and billions on intelligence, and for a lot of purposes, but the ultimate purpose certainly is to furnish our fighting men the kind of intelligence they need when they are going into an operation. At least that is one of the ultimate purposes. I would appreciate it if you would check that out.

Mr. Chairman, I think my time has expired.

Senator THURMOND [presiding]. Go ahead if you have any more questions.

Senator NUNN. Well, just a couple more.

OFFENSIVE MINES

Again shifting subjects, Admiral McDonald, can we deliver offensive mines quickly enough to impede Soviet naval operations? Can we do that now?

Admiral McDONALD. Yes, sir. If you will let me include the NATO forces also as well as the U.S. forces.

Senator NUNN. With the joint capabilities you think we are all right in that category?

Admiral McDONALD. Well, we can do better, Senator. We obviously have some weaknesses in mine countermeasures. We have weaknesses in numbers of mines that we think we should have. But nevertheless, the Allies and the United States collectively have significant mine capability, and I think we could impede Soviet actions in certain areas of the world.

CLEARING MINE FIELDS FROM RED SEA

Senator NUNN. General Kingston testified this morning that France and the Netherlands and other NATO countries did not participate in combined coordinated operations with the United States in clearing mines from the Red Sea last summer, even though they sent units to the region to operate independently of our forces.

What does this portend for out-of-area type problems in terms of relying on allies in that area?

Admiral McDONALD. I think that you have addressed the point that out-of-area is still a very contentious issue relative to individual nations' participation within the Alliance. Each nation will participate out-of-area as it probably affects their own national interest. The Italians and the French did participate in some minesweeping operations, not necessarily in conjunction with the U.S. efforts, but at the same time, trying to help to clear the Red Sea at that point, as an example of out-of-area interest.

I am not as sanguine as I would like to be in the South Atlantic, as an example, as to what Allies can do out-of-area, although the United Kingdom continues to display significant out-of-area attention in the Falklands, which is of primary concern to them. But if we could keep those forces at least dedicated to doing things out-of-area, I would feel much better.

There is a tradeoff, though, Senator. As you well know, there are not enough forces in the Alliance right now to accomplish everything that we might be faced with in the NATO area. If we then start working out-of-area, it is going to cause a drawdown on the forces that are in the North Atlantic, Norwegian Sea, Mediterranean.

We need to pay more attention to building maritime forces and to increasing conventional warfare capability, as General Rogers keeps articulating. It seems to get lost, and this is not just for tanks and men and guns on the Central Front. It has to pervade into the other areas of defense, particularly the maritime areas.

Senator NUNN. Well, I agree with you. Admiral Crowe, could you take a crack at both those questions as far as your own command, whether we have enough capability to lay down mines in your area?

Admiral CROWE. Well, Senator, we have the capability to carry out what I believe are most critical mine plans. We have some uncertainties as the delivery platforms are dual purpose and can be used for a number of things. Some decisions would have to be made at the time as to whether the mines would be a high priority or not.

We have some uncertainties also that concern our allies and their mine plans; and I would prefer to discuss that in a closed forum.

Senator NUNN. Could you say in open session what allies we depend on in that area, or is that classified in your area?

Admiral CROWE. No, but of course the allies that are most obviously concerned would be those in northeast Asia, primarily Korea and Japan.

Senator NUNN. And they do have some capability?

Admiral CROWE. Yes.

Senator NUNN. Mr. Chairman, I have a couple of other questions that I want to submit for the record, but I know you have been here for quite a while, and I will cease my questioning and defer to you at this stage and ask that the rest of my questions be for the record. And if I could just briefly recite, I will ask both Admirals to report your use of the C ratings, and how you go about that, and what use you make of those ratings, and whether you have any suggested changes in those. We feel at this stage, I think everybody feels, they are deficient. How we go about changing them is an important ingredient.

Another question, there has been a proposal by Senator Rudman to cut a 10-percent reduction in support forces overall, and I would like to get your reactions for the record about the effect that would have in your particular command.

Also, I would like for both of you to address, to the extent that you can and in a general way, what effect you would see in your areas of responsibility if we do go to a 3 percent limit on defense spending real growth over the next, let us say, 3 years, and we fence off or make top priority the strategic modernization program, the nuclear programs, as well is the new Strategic Defense Initiative. What effect do you see in budgetary terms in your own areas of responsibility? I will ask these questions for the record, and I know that they will take some analysis.

Thank you.

Thank you, Mr. Chairman.

PRESIDENT RECOMMENDS 5.9 PERCENT DEFENSE INCREASE

Senator THURMOND. I would like to ask you all this question, gentlemen. The President has recommended a 5.9-percent increase. The Republicans on the committee have gone on record as favoring that amount, but in no event to go below 4 percent.

I would like to get your reaction to that.

Admiral CROWE. Well, Senator, I am well aware——

Senator THURMOND. I would imagine you would prefer the 5.9 percent, would you not?

Admiral CROWE. Absolutely, sir, and anything below that will require stretch outs.

Senator THURMOND. Excuse me. What did you say?

Admiral CROWE. Anything below that will require us to extend out the period of time for us to get the things that we require and delay many of the things that we feel are very important to us.

Senator THURMOND. There are some of us that feel that 5.9 percent is reasonable and should be approved, but on account of the budget situation, it may be impossible to get that, and so we felt that in no event should we go below 4 percent.

Would you approve, then, of the position we have taken there, that in no event go below 4 percent?

Admiral CROWE. Well, Senator, my own approach is that rather than endorse a particular cut or a particular priority system, I do not have cognizance of the entire budget, and I am not seized by all the pressures that bear on it. But I know in my region there are certain things that are very, very important to me, and I attempted to touch on those in my oral statement. I am talking primarily in the sustainability area, the air-to-air munitions and the improved conventional munitions. I am talking about the readiness area, the O&M funds, particularly on ship maintenance, ship steaming hours, flying hours, and personnel improvements; and I am talking about modernization, long-range delivery platforms, the over-the-horizon radar, chemical munitions, antisubmarine weapons, and my C3 improvements.

Those are very, very important to me, and the quicker I get them the better. It is very difficult to live with those deficiencies.

Senator THURMOND. And you would favor the full 5.9 percent?

Admiral CROWE. I would favor it absolutely, sir.

Senator THURMOND. Admiral McDonald, how do you feel?

Admiral MCDONALD. My response would be almost the same, Senator. Obviously, those of us who have participated in the budget feel that we have come up with a balanced approach to what the Defense Department needs to meet the threat. To then have to face a reduction on that proposal makes it very difficult for us to say what part of the threat that we are not going to be able to meet, what part you are going to be stretching out programmatically.

But I would hope that any future decisions to reduce the budget, which obviously are the tough decisions that certainly this committee has to face up to, reflect the best that not only the service programmers can present as to what impact that has, but will again come back to the CINC's to participate in this. We are doing this now in the Department of Defense deliberations on the budget, viewing what these decisions will do to our day-to-day war fighting capability.

The danger in reductions after programs are submitted, or after budgets are submitted, is that people will then say well, this program probably can be stretched out, or we can probably cut this program, without realizing what the total downstream impact may be on the war fighters.

And I am sort of stepping up and saying that we need to participate in those kinds of further budgetary considerations; that we are at the present time much more in a participatory mode than we were 3 years ago. I would hope that any kind of a reduction like that would take place with full knowledge and consideration, but at least with the best articulation of some of the things that Admiral Crowe has said are his war fighting musts. I have similar things that I should be able to articulate before we start chopping off to get to a certain percentage.

PRIORITY PROGRAMS

Senator THURMOND. We had prepared a chart several days ago in which we listed 20 priority programs. And if you canceled all of those, all 20 of them, you would save only $10 billion. And if you go canceling some of these programs, reducing or canceling, it will cost you a lot more in the end to complete those programs, and you really do not save much money if you have got to renegotiate contracts. For instance, if we ordered 48 planes and then cut it to 24, it would cost many millions more for each plane. I mean it just does not make sense.

We have got to have this equipment sooner or later, and I think it is a great mistake if we go trying to reduce or cancel a lot of these programs. And what the President has asked for this year is really lower than President Carter's request for his 5-year program his last year. And it is very difficult, and I get right frustrated in dealing with some of these people that just do not seem to understand the situation. If we are going to survive and maintain our freedom, the only way to do it is to keep a strong defense establishment; and if we need to, put the weapons in our President's hands to try to get an agreement in Geneva. We have got to send the right message to the Soviets, or we will not get any agreement.

And I think it is a very critical time in world history now to cut below 5.9 percent, although in view of the budget crunch, the Republicans on the committee said under no conditions should we cut below 4 percent, and that is the reason I asked the questions I did about that. In other words, here is an example. The A-6E aircraft cost $25 million per plane when buying 12 planes, $39 million per plane when buying only 6.

So I hope the Senate and I think the whole Congress will think well before they advocate a program here that will reduce or cancel important programs that are under way.

I want to thank you, gentlemen.

Did you have anything more, Senator Nunn?

PROGRAM STRETCHOUTS

Senator NUNN. No, Senator. I wanted to go on record as agreeing with you as to the effect of stretchouts. We keep stretching out programs, which we have really done over the last 3 years—in fact, it is not just the Congress; the administration has been stretching programs, too, and what we now have is a huge number of production lines out there, and many of them, if not most, are not operating at efficient rates.

If we keep stretching these programs, we are going to be in very poor shape as far as effectiveness and efficiency of expenditures. I think that is a point all of us need to start looking at, but that means as we reduce the budget, even if we just go to 4 percent, that we are going to have to find something to cancel, unless we are going to affect readiness and sustainability. And if we do not find something to cancel and if we want to protect the personnel, which both have indicated are of high priority, and protect sustainability, and increase sustainability, then you have got to cut somewhere. If you are not going to stretch out, you have got to do some canceling.

I would agree with what both admirals have said, particularly Admiral McDonald, on the necessity of consulting with the CINC's out there. If we go to 4, or 3, or 2 percent, or whatever before we come up with the final cut list, because your priorities should have and I think will have, if we are in consultation with you, a great effect on where those cuts are made.

Senator THURMOND. The personnel is pretty well fixed, and we are having trouble now—we are beginning to have trouble now recruiting. Of course, I have favored a draft myself, a mandatory draft, and I think it does not hurt any young person to serve his country. But since we have this system, the economy is getting better now, and there are not as many young people joining the service.

Senator NUNN. Senator Thurmond, if we could get a bill drafted real quick now, you and I could pass it out of committee. [Laughter.]

Senator THURMOND. We could get a unanimous vote. [Laughter.]

And then on the commitments that have been made, you cannot cancel those without renegotiating the cost and stretching out, as Senator Nunn has said, costing a lot more money. And on the readiness, I do not see how we can afford to reduce readiness. So that only leaves about 12 percent outlays, and on that, as I said, if you reduced or canceled 20 different programs, all of them priority programs, you would only save $10 billion.

So I think the Congress and the people of this country had better think well before they go cutting this budget as some of them seem to want to do.

We thank you gentlemen very much for your appearance here, and we appreciate your fine, dedicated service. And Admiral Crowe, before you leave, I remember when I was out in Hawaii you showed me the finest collection of caps and hats that I had ever seen in my life. I have never seen so many caps and hats anywhere. You have got room after room, hundreds of them, and I am going to add to your collection by giving you one of the Carolina Farmer. [Laughter.]

Admiral CROWE. Thank you, Senator. It will be displayed prominently. [Laughter.]

Senator THURMOND. We have some questions to be answered for the hearing record.

[Questions with answers supplied follow:]

QUESTIONS SUPPLIED BY SENATOR BARRY GOLDWATER

WATERFRONT SECURITY FOR SHIPS

Senator GOLDWATER. Last year, Congress added $5 million to improve waterfront security for naval ships. How would you assess waterfront security currently provided Navy ships in domestic ports? In foreign ports? What improvements, if any, ought to be made?

Admiral McDONALD. Waterfront security at naval bases is inadequate to prevent a dedicated intruder from gaining access to the vicinity of the piers and conducting an attack on ships located there. We are working hard to improve this situation, but I am not sanguine that we will ever be able to present a totally secure environment in this very broad area. There are a number of reasons for this, including:

Most naval stations are part of, or adjacent to, major commercial and civilian sealanes. The volume of transiting waterborne traffic precludes tight waterside security. As example, the piers at Norfolk lie just outside the main shipping channel; the channel is also a part of the Intercoastal Waterway.

Naval stations are extremely busy commercial and industrial activities. The naval complex in the Hampton Roads area employs approximately 38,000 civilians and nearly one hundred thousand uniformed personnel. Over 40,000 vehicles enter the Norfolk Naval Base daily. A security exercise was conducted last year at some entrances which increased the overall security posture of the base, but it also resulted in massive traffic jams and a major disruption to the daily working schedule of thousands of employees.

Pier security, while improving with the installation of barriers, fences and the increased presence of security personnel, is compromised by the need to provide pier access to delivery trucks, tradesmen and civilian ship repair personnel. These are activities necessary to the day-to-day operation of the fleet when in port.

Overseas the level of security provided in non-naval ports is normally minimal, limited to security guards at the entrance. In these situations, the ships deploy additional security personnel to monitor access to the ship.

SEALIFT

Senator GOLDWATER. For several years, the Navy has been purchasing used ships in the commercial market and storing them in the Ready Reserve Fleet in order to increase our Nation's sealift capability. And last year, Admiral McDonald (you) said: "My primary concern is our ability to sealift military cargoes in time of war." How would you assess our current military and economic sealift capability? What trends do you see in meeting this requirement? Can Navy sealift adequately substitute for the U.S. national merchant marine? If not, why not?

Admiral McDONALD. The Navy has undertaken numerous sealift enhancement programs in the last five years to offset the deficiencies in the U.S. flag merchant marine capability. These programs include:

Expansion of the joint MARAD-Navy Ready Reserve Fleet. The RRF has expanded from 32 to 59 ships and is expected to increase to more than 100 ships within the next few years.

Establishment of the Near-Term Prepositioning Force (NTPF). There are 17 ships in the NTPF, positioned in the Indian Ocean, Pacific and Mediterranean. They carry enough equipment and supplies to support a Marine brigade, plus other material and ammunition for Army and Air Force units.

Development of the Maritime Prepositioning Ship (MPS) Program. A total of 13 MPS will be on line by March 1986. Five ships have been delivered to date. The MPS will be loaded with enough equipment and supplies to support three Marine brigades for 30 days.

Conversion of eight large containerships into Fast Sealift Ships (FSS). They will be kept in a reduced operating status, but will be capable of being activated within

96 hours. Four FSS have been delivered; the remainder will be delivered over the next year.

Conversion of 11 ships into crane ships capable of unloading containers under a wide range of primitive conditions. This is one solution to the challenge of making today's merchant marine ships more militarily useful. The first crane ship has been delivered and successfully tested.

The U.S.S. flag merchant marine has been declining steadily in terms of militarily useful ships and the trend is expected to continue. Because of the competition with foreign flag vessels, the U.S. merchant marine has turned to greater containerization of cargo and the increased use of larger, more productive ships. While these trends may provide commercial advantages, there are significant military drawbacks. The size of larger ships may prevent their access to some ports; much military cargo will not fit into standard containers, and shoreside cranes required for unloading are not always available during hostilities.

The Navy's sealift programs are intended to meet wartime military requirements only to the extent that the U.S. merchant marine cannot. These programs are not a solution to the important problem of economic shipping requirements. There is no substitute for a strong and diversified merchant marine.

ENCOURAGING JAPAN TO ACCELERATE DEFENSE IMPROVEMENTS

Senator GOLDWATER. How can Congress assist you in your efforts to encourage Japan to accelerate its defense improvements?

Admiral CROWE. Your choice of the word "encourage" is very appropriate. Members of Congress can be especially helpful by using every opportunity in contacts with Japanese officials and the media to point out the seriousness with which we view the growing Soviet threat in the Pacific, the importance of burden sharing by our allies, Tokyo's stake in deterring Soviet interference, and Japan's economic and technical capabilities which are more than adequate to meet the GOJ's agreed goals and missions in the defense of Japan.

Senator GOLDWATER. Last year Senator Nunn proposed that the U.S. withdraw troops from NATO if its allies failed to make certain defense improvements. How would Japan react if it were the object of a similar proposal?

Admiral CROWE. The reaction in Japan could be very negative and counterproductive to U.S. interests. Japan has been making steady defense improvements. Nominal defense budget increases over each of the past five years have been 6.5 percent or more. Even in real terms these increases were close to 4 percent. There have been important advances in equipment quality (F-15s, P-3s, E2Cs, missiles, communications) and a new emphasis on sustainability.

In our view, these are steps in the right direction, though admittedly not at the pace we would like to see. The important thing is that the Japanese are moving ahead on defense because they increasingly recognize their treaty obligations with the U.S. and the growing Soviet threat. To withdraw U.S. troops from Japan would send a contradictory signal to the Japanese concerning that threat, would destroy much of the credibility as an ally we have been rebuilding in Asia in the wake of the Vietnam conflict, and would severely damage the deterrent effect of our forward deployment posture in the Pacific. Moreover, such a move would hardly reinforce our argument that the military threat to all the free world nations in the western Pacific is increasing. I would view a withdrawal as a very destabilizing action for the region as a whole and one which would not serve U.S., Japanese, or free world interests in East Asia.

TAIWANESE SEEK F-16 AND F-20 AIRCRAFT

Senator GOLDWATER. The Taiwanese are seeking to buy a new fighter aircraft such as the F-16 or F-20 to preserve what they regard as an essential margin of air superiority over the Taiwan Strait. If they are unable to buy fighters from others, do you believe that Taiwan can maintain an adequate air defense with aircraft they design and produce themselves?

Admiral CROWE. In my view, Taiwan currently has an adequate air defense system. They are already co-producing modern jet fighter aircraft for air defense. As industry on Taiwan matures, I expect that they will develop an increasing capability to produce sophisticated systems for their own defense.

CURRENT MILITARY AND SEALIFT CAPABILITY

Senator GOLDWATER. For several years the Navy has been purchasing used ships in the commercial market and storing them in the ready-reserve force in order to increase our nation's sealift capability and last year Admiral McDonald said "My primary concern is our ability to sealift military cargoes in time of war." How would you assess our current military and economic sealift capability?

Admiral **Crowe**. The Maritime Administration and the Military Sealift Command could better discuss this subject. However, our military sealift capability is not sufficient to meet wartime movement requirements. Although the recent acquisition and conversion of eight former large container ships to roll-on/roll-off ships have significantly enhanced our military sealift capability, we must continue to seek means to insure we have the proper mix of military and U.S. commercial sealift to meet wartime requirements. Our ability to sustain our forces in combat overseas is to a great degree, as in previous conflicts, dependent upon the Merchant Marine's capability to augment our limited military sealift resources. In this regard, the trend on the part of the Merchant Marine toward containerships is not compatible with military needs and has forced the DOD to work with industry in developing ways to better use the generally more economical, but less militarily applicable, containerships entering the Merchant Marine.

Senator **Goldwater**. What trends do you see in meeting this record (requirement)? (Sealift)

Admiral **Crowe**. I must defer this question to the Military Sealift Command and the Maritime Administration. However, the trend of the U.S. flag fleet appears to be toward containerships which has resulted in fewer ships of greater capacity, but less suited for military operations. Therefore, I am concerned that we don't have enough of the right type ships and that any further decline in the Merchant Marine without building new ships capable of supporting military requirements could impact adversely on sustaining our forces.

Senator **Goldwater**. Can Navy sealift adequately substitute for a U.S. National Flag Merchant Marine? If not, why not?

Admiral **Crowe**. The answer to this question and specific facts can best be provided by the Military Sealift Command. However, in my opinion, Navy sealift capability, and what we are really talking about here is the Military Sealift Command (MSC) controlled fleet, is not adequate to substitute for a U.S. National Flag Merchant Marine. Specifically, the strategic sealift portion of the MSC controlled fleet totals only 60 vessels (21 of which are prepositioning ships). By comparison, I need more than four times that number of ships just to support a war in Korea. The DOD has always been and will continue to be dependent upon the U.S. Flag Merchant Marine Fleet to augment the limited military sealift capability required to support contingencies.

WATERFRONT SECURITY FOR NAVAL SHIPS

Senator **Goldwater**. Last year Congress added $5 million to improve waterfront security for naval ships. How would you assess the waterfront security currently provided Navy ships in domestic ports? In foreign ports? What improvements, if any, ought to be made?

Admiral **Crowe**. In port, ships present highly visible, potential targets to terrorist/dissidents since damage would ensure wide media exposure. Accordingly, protecting these assets has become a priority concern in the face of the rapidly increasing terrorist threat. Navy ships are vulnerable to attack both in U.S. and foreign ports. Our activities have been directed to take the following actions to improve security: designate piers and wharves servicing Navy ships restricted areas and develop a means to control vehicle and pedestrian access; limit vehicular parking on piers and wharves to essential government vehicles only; post topside sentries; construct barriers to prevent direct, unchallenged access by vehicles to piers/wharves; where parking is required in proximity to piers/wharves, separate parking from ships by a barrier and ensure 30 feet separation from ships; and develop patrol boat capability at all naval stations/principal Navy ports.

Protection of our ships in foreign ports is a joint responsibility of the ship and the host government. Minimum requirements for security in foreign ports have recently been established, with the rigging of increased lighting and forward deployment of EOD detachments to selected high threat areas. These measures enhance the security of Navy ships.

To provide increased security of ships in U.S. ports would require: Security personnel augmentation; procurement and manning of sufficient patrol craft to provide adequate 24 hour seaward protection; and development of a sufficiently armed, well-trained security force ashore capable of combatting a terrorist threat. In the long term, development of a cost-effective waterborne intrusion detection system would be a significant improvement in countering the potential swimmer/underwater threat.

This is particularly true for ships in foreign ports where U.S. patrol boats are normally not feasible.

QUESTIONS SUBMITTED BY SENATOR JOHN WARNER

STRATEGIC AND TACTICAL COMMUNICATIONS SATELLITE SYSTEMS

Senator **WARNER**. Admiral McDonald, do you consider adequate the capacity of your current strategic and tactical communications satellite systems?

Admiral **McDONALD**. The capacity of our current strategic and tactical communication satellite systems is not adequate to support requirements [deleted].

SHF satellite requirements exceed capacity [deleted]. Continued Congressional support for the Defense Satellite Communications System (DSCS) and especially the second Atlantic satellite is required. The on-going [deleted] our ability to operate in a jamming environment and to continue to support the tactical commanders.

Even with the advent of EHF/SHF satellite systems (MILSTAR) in the 1990s, [deleted].

CUBAN AND NICARAGUAN BUILDUPS

Senator **WARNER**. Admiral McDonald, what steps have been taken to upgrade Navy capabilities in the Caribbean since Cuban and Nicaraguan buildups have been proceeding?

Admiral **McDONALD**. USCINCLANT has upgraded maritime capabilities in the Caribbean by increasing naval presence, increasing monitoring of regional military activities, and the initiation of numerous Command, Control, Communications, and Intelligence (C^3I) programs.

Since December 81, USCINCLANT has provided nearly continuous warship presence off the west coast of Central America, [deleted]. Frigates, destroyers, and cruisers have been assigned this duty on a rotational basis. Besides near continuous presence, these ships [deleted] perform humanitarian assistance missions in the Central American region. [Deleted.]

To provide more visible U.S. naval presence in the area, USCINCLANT has increased scheduled port calls and training cruise operations throughout the Caribbean area.

Four C^3I upgrade programs for the Caribbean are included in the 1986 budget. They are:

[Deleted.]

These improvements will do much to increase this command's ability to support the National Military Command System and will enhance tactical and theater commanders' ability to accomplish their assigned missions. Near real-time information systems will allow commanders to:

Better monitor the current military posture of opposing forces.

Formulate appropriate response based on timely warning indications and threat assessments.

NAVY HARD PRESSED TO KEEP READINESS POSTURE

Senator **WARNER**. Admiral Crowe, you mention in your statement on page 16 that the Navy is hardpressed to keep up its readiness posture under current end strength limitations, especially with new ships and aircraft coming on line.

What innovative steps is the Navy taking to reduce the size of ships' crews and to realize greater efficiencies overall in the use of our personnel?

Admiral **CROWE**. Efficiency-oriented designing of new Navy ships has enabled us to have significantly smaller crews. For example FFG-7 class frigates have crews of 194, while their older counterparts of the FFG-1 class need 277, and *Ticonderoga* class cruisers have crews of 353, as opposed to 423 of the CG-16 class.

Even though watch station automation is introduced early in the procurement process to reduce the number of crewmen required, the Navy continues to validate mission and maintenance issues to ensure manpower requirements are not overstated.

Greater efficiency has been realized in: The Navy pursuing the commercial activities (CA) program (assessing about 4500 billets per year); the Efficiency Review Program for shore activities not covered under CA programs, which has a goal of reducing military and civilian positions through the application of engineering and time studies standards (about 500 total positions per year); and tasking more missions to the Reserves.

QUESTIONS SUBMITTED BY SENATOR DAN QUAYLE

PEOPLE'S REPUBLIC OF CHINA

Senator **QUAYLE**. Admiral Crowe, on page 4 of your testimony you value the PRC's role in the Asia-Pacific region and that it is an important element in the strategic equation. What specific military capabilities would be helpful to U.S. interests for the PRC to have that it does not now have?

Admiral **CROWE**. Areas in which improvements are most needed and in which the sale of military equipment can be most helpful to our interests include defensive technologies, such as anti-armor, anti-air, improved air-to-air defenses, and defensive systems that permit the PLA Navy—essentially a coastal force—to operate safely in Chinese waters. Logistics and communications improvements which allow the Chinese military to operate more efficiently or at less cost also are beneficial without threatening anyone else. We should continue to look at these on a case by case basis.

In the larger scheme, continued direct contact and participation in military exchanges between U.S. and PRC military personnel can result in increased understanding and more effective use of the equipment we do provide. Such steps benefit overall peace and stability in the Pacific.

PRC MILITARY CAPABILITIES

Senator **QUAYLE**. Conversely, what specific future PRC military capabilities might undermine U.S. and allied interests in the Pacific and why?

Admiral **CROWE**. The Chinese military today has all of the characteristics of a defense-oriented force. Even their strategic missile force is essentially a deterrent force which can make a potential enemy think twice, rather than a force to initiate hostilities. In my view, it would take a profound change in Chinese security thinking and economic policy to create military capabilities that would seriously threaten allied and U.S. interests militarily.

We should be concerned if we saw the Chinese developing a military force such as the Soviets have, with all of the characteristics needed for power projection—that is, extensive strategic bomber and strike forces; intercontinental airlift capabilities; a large blue-water, aircraft carrier equipped Navy; substantial amphibious assets and most importantly, a logistics system which could support sustained power projection. We don't see any of that happening now, nor in any of the Chinese plans of which we are aware. We would also be deeply concerned if we saw the Chinese exporting western technology to North Korea.

PRC NUCLEAR ATTACK AND BALLISTIC MISSILE BOATS

Senator **QUAYLE**. Would the U.S. favor the expansion of the PRC's fleet of nuclear attack and ballistic missile boats?

Would these boats be included among those we would have to track?

Admiral **CROWE**. We do not encourage the expansion of nuclear propelled submarine capabilities of any nation. Given, however, the many advantages this form of propulsion offers, it is unlikely that any major navy will forgo such developments. In the case of the Chinese, the current existing limited capabilities do not provide an offensive threat, but do provide a deterrent to the Soviet Navy and ballistic missile menace. Movements of foreign naval forces are followed as a matter of routine interest. Of course the more capable the units (e.g. nuclear powered) the deeper our interest.

MILITARY THREAT OF PRC TO PACIFIC FRIENDS

Senator **QUAYLE**. What specific military threats does the PRC pose to which of our Pacific friends, as these allies see it?

Admiral **CROWE**. China, as opposed to the Soviet Union, is generally seen as the primary intermediate to long-term threat by some of the Southeast Asian states due to a previous history of material support to regional communist insurgencies, and unretracted Chinese territorial claims in the region, including a blanket claim to most of the South China Sea and its islands, e.g. the Spratlys.

The Southeast Asian states do not accept PRC statements of simultaneous "state-to-state" relations with the governments in Southeast Asia and "party to party" relations with the residual communist parties in the region. The individual ASEAN countries vary in their perceptions of China as follows:

Thailand, while not totally unconcerned by China's long-term threat potential, is primarily concerned with the threat from Vietnam, and sees the PRC as playing a helpful role vis-a-vis Hanoi's forces.

Malaysia, with a large indigenous overseas Chinese population and memories of the long years of guerrilla warfare which ended in the defeat of the PRC sponsored Communist Party of Malaya (CPM), is very concerned about the potential for renewed support from China for indigenous insurgents.

Singapore, with a majority Chinese population, does not perceive the Chinese threat so strongly, but is a sharp critic of the PRC "party to party" policy.

Indonesia places the Chinese threat first due to the alleged involvement of the PRC in the 1965 uprising of the Communist Party of Indonesia (PKI) and the large number of Chinese residents in Indonesia who do not take out Indonesian citizenship.

The Philippines verbalizes the Soviet threat first, but considers the PRC a long-term potential threat due to the persistence of indigenous Communist parties in the region. Moreover, the HUK movement received considerable support from Maoist Chinese.

Brunei, ASEAN's newest member, has aligned itself with ASEAN policy in general, and has not publicized an independent threat position. However, there is a substantial unintegrated permanent resident population of overseas Chinese in Brunei.

Australia, New Zealand, and Oceania (island/nation states of SW Pacific) generally do not perceive the PRC as a military or political threat to the region, either in the short or long-term.

The Republic of Korea (ROK) perceives the support that China may provide to North Korea as a near term threat. This includes the transfer to North Korea of technology China may obtain from other countries. In the long-term, China's proximity and military strength pose a potential military threat to the ROK.

The Japanese clearly recognize China's potential and are concerned that U.S. military technology may flow unrestricted to the PLA. For the moment, the Japanese are more interested in the economic development of China, but they do not want the development of a modern Chinese military force that could pose a direct threat to Japan or its sea lanes.

SOVIET MILITARY EFFORTS

Senator QUAYLE. On page 11 of your public testimony you note that Soviet military efforts put "a premium on our ability to attack targets effectively from great distances."

If a longer range conventional land attack cruise missile were available than the currently configured TLAM/C, would it serve this end? Also, would it be a help if B–52s with long range conventional stand-off missiles were available?

Admiral CROWE. Extended range in any weapon delivery system is a desirable performance characteristic. In the USPACOM, it is particularly important in the context of trade off between penetration distance and standoff distance. The significant Soviet threat to potential launch platforms increases the correlation between standoff range and platform survivability, and greater TLAM/C range would, within practical limits, proportionately reduce the risk of losing launch platforms without decreasing the number of targets which could be attacked.

KEEPING PACE WITH ADVANCED WEAPONS

Senator QUAYLE. On pages 13 and 24 of your public testimony you note that we cannot lose sight of the need to keep pace with the requirements for advanced weapons systems and the munitions on which we count so much to counter the numerical advantages enjoyed by our potential adversary. Yet, in discussing "advanced munitions" you mention only the AIM–9 and AIM–7, AMRAAM, 155mm and 8 inch artillery ammunition and Copperhead, the last three being deployed technology. What new advanced munitions might your command desire in the next 10 years?

Admiral CROWE. My command requires more and better standoff weapons (SOW) in order to enhance the survivability of weapon delivery platforms, whether they are aircraft, surface ships or submarines. Specifically, I need the following: (Not in priority order).

More and improved Tomahawk Anti-Ship (TASM) and Land Attack (TLAM) cruise missiles.

More Harpoon anti-ship missiles.

AGM–88 High Speed Anti-Radiation missiles (HARM) to suppress enemy air defenses.

AGM-65 Maverick missiles, in imaging infrared (IIR), laser and alternate warhead variants.

The boosted GBU-15 glide bomb (AGM-130).

An effective hard structure munition (requirement may be met by the alternate warhead Maverick).

Binary chemical munitions (155mm, MLRS, Bigeye bomb).

The Durandal cratering munition for use against airfield runways.

An improved torpedo for use against fast, deep-diving submarines as well as those on the surface and in shallow water.

A replacement for the SUBROC standoff anti-submarine weapon.

A long range anti-air warfare capability effective against both aircraft and cruise missiles.

U.S. BASE VULNERABILITY

Senator QUAYLE. How vulnerable are your command's ports and bases to conventional and chemical tactical ballistic missile attack or SS-20s?

Admiral CROWE. Currently, due to the limited ranges of Soviet ground launched tactical ballistic missiles, only the SS-12/MOD 2 has the capacity to reach U.S. bases in Japan. In addition, there are currently 15 SS-20 bases in the Far East, with a total of 135 launchers. The SS-20 has a range of 2,700 NM. Therefore, all U.S. bases in Japan and South Korea are within range, as are northwestern Alaska, the western half of the Aleutian Islands (including Adak), and the major bases in the Philippines (Subic Bay and Clark AFB).

QUESTIONS SUBMITTED BY SENATOR SAM NUNN

C-RATINGS

Senator NUNN. Admiral Crowe and Admiral McDonald, there has been some criticism by DOD officials of the C-ratings used under the UNITREP system to report unit readiness.

Do you personally use the C-ratings to monitor the readiness of units under your command? What other readiness indicators do you use to measure trends over time? What indicators should we in the Congress use to measure progress in this area?

In general, what do C-ratings trends for the past year show for the units under your command?

Pacific Command

Admiral CROWE. In response to the first part of your question, I do use C-ratings to monitor the status of units under my command. C-ratings are a good resource management tool for tracking on-hand unit resources of personnel and equipment with the requirements for each as established by the unit's respective service. They are effective as long as the rationale behind the ratings is understood. C-ratings were not designed to provide an overall measurement of an organization's capability and whether that organization's overall capability has improved or deteriorated, which leads to the second part of your question. I do use other indicators to measure changes in unit capabilities over time. These include accident rates, retention rates, the number and effectiveness of exercises, service optempo, maintenance backlogs, casualty reports and their frequency, equipment modernization, results from operational readiness inspections, commander's assessment reports and of course my own personal observations on field visits and conversations with my commanders.

Regarding what indicators Congress should use to measure progress in readiness, let me first say that no indicator is valid unless the basis of its origin and the factors which can effect it are understood. C-ratings can be of great value because they are numerical and easy to grasp. But they only concern whether a unit is realizing its equipment's potential. They do not compare performance between differently equipped units. If, for example, the effects of equipment modernization or service-directed organizational changes on unit C-ratings are not accounted for, C-ratings can be very misleading and the statistics unjustly distorted. Service statistics, such as training days, flying hours, steaming days, and maintenance backlogs are also useful, along with accident and retention rates. However, none of these indices alone presents a full picture. They must be viewed collectively and assessed with the very important perceptions of the theater commander regarding his forces. In essence, assessing overall readiness is more an art than a science. This is where a commander's judgment is forced to play a significant role—as uncomfortable as that may be in today's statistic oriented world.

Finally, as to the C-rating trends for the past year, USPACOM has experienced an overall improvement in reported unit statistic averages in 1984 over 1983. Gains in the percentages of units reporting the higher levels of unit readiness (C1–C2) are noted for Navy, Army, and Air Force combat units. Marine Corps ground units, however, slightly decreased statistically due to specific personnel shortages.

Atlantic Command

Admiral McDONALD. I receive a daily briefing on the readiness of the Atlantic Fleet; this daily update is based upon the Unit Reporting System and employs C-ratings. If I require more information on the status of individual units, I can obtain that from more detailed readiness reports, such as casualty reports, which are submitted by these units. In addition, battle groups at sea submit a daily summary of group readiness.

Although the C-rating system may not be a perfect indicator of all conditions, it is an excellent tool for comparing trends. Much as the Dow-Jones Industrial Average provides a snapshot of today's stock market activity for the selected issues, the C-rating does much the same thing. Today's individual number means nothing in itself, but when compared with last week or last year, it can be most informative. The C-rating trend for the past year in the Atlantic Fleet has been improving.

For the Congress, perhaps the best method to monitor the readiness of the military would be a periodic presentation from DOD on the status of both the active and reserve forces, which could address the overall status in each resource and warfare area.

REDUCING MILITARY PERSONNEL IN SUPPORT FUNCTIONS

Senator NUNN. Admiral Crowe and Admiral McDonald, there have been recent suggestions in Congress that we could reduce the number of military personnel in support functions.

What impact, if any, would a 10 percent reduction in support forces have on the overall capability of the forces under your command?

Pacific Command

Admiral CROWE. At the present time. constrained manpower levels in both Army and Marine Corps support forces severely limit sustainability in combat operations. Additionally, the Navy is gapping certain shore billets to meet the expanding requirements of the fleet. A further 10 percent reduction in support forces in USPACOM would compound current shortages and have a harmful impact on the capabilities of the forces under my command. It would do so in several ways: first, such a reduction would directly affect the combat readiness of USPACOM forces because support personnel perform functions without which combat forces cannot carry out their missions; second, the material readiness of combat forces would suffer because of the loss of maintenance and repair capabilities; and third, personnel readiness would decline because of personnel turbulence and the loss of health, welfare, training and administrative support. In sum, a 10 percent reduction in support forces would significantly degrade the readiness of USPACOM forces.

Atlantic Command

Admiral McDONALD. A 10-percent reduction in the number of support personnel would have a significant impact upon the Atlantic Command. The proposal which has been reported in the press discusses military forces in terms of "warriors" and support forces. For example, electronic technicians are considered support forces, yet without them aboard ship we will be unable to maintain combat systems in an operating condition. In this scenario, whether it is a ship or a squadron, it is most difficult to differentiate between those who fight and those who support. Each group has a critical role to play in the maintenance of combat readiness.

Ashore, such reductions would come at a time when we are moving toward the 600 ship Navy. Growth ashore has been constrained to fiscal year 1984 levels, an action which is already impacting upon our overall readiness. The Navy's personnel program is unique in that we must maintain an equitable pattern of sea-shore rotation. Reductions in shore support forces will adversely impact upon the rotation system.

STRATEGIC NUCLEAR PROGRAMS

Senator NUNN. Admiral Crowe and Admiral McDonald, there is a growing tendency by the Defense Department, particularly with resumption of arms control negotiations, to say that the strategic nuclear programs should be fenced from any reductions in the defense budget.

If the defense spending levels of the current Five Year Defense Program are reduced to an average 3 percent level, as they almost certainly will be, what effect would exempting strategic nuclear programs and the Strategic Defense Initiative from any reductions have on our conventional capability and our capability for low intensity conflict?

Pacific Command

Admiral CROWE. Reduction of the FYDP to a 3-percent annual increase while fencing strategic programs (strategic nuclear and SDI) would have a major impact on our conventional programs. Without going into dollar figures, or trying to predetermine what the services would cut to meet such a limit, I can only speculate where the impacts would occur with regard to my own AOR. First, operations and maintenance dollars would be reduced, thus reducing our everyday readiness to fight and causing further deterioration of facilities. Second, procurement of munitions and spares would be reduced, thus impacting on our attempts to improve sustainability. Third, procurement of new weapons systems would be reduced or stretched out, with the result that our fielded equipment would be older and less effective and the cost of the programs would increase.

Such a reduction would have a major impact on our ability to respond to fast moving crises and would also have a detrimental effect on our ability to control early a lower level conflict.

Atlantic Command

Admiral McDONALD. It is not possible for me to assess accurately the specific impact such action might have upon our conventional capability or our capability for low intensity conflict. However, in a general sense, a reduction in non-strategic spending, which would limit overall growth to 3 percent, could require a major restructuring of Defense programs, and could force the cancellation of some critical procurement programs.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

COMBAT READINESS AND SUSTAINABILITY

Senator LEVIN. You have been outspoken about the high priority you place on maintaining and improving the day-to-day combat readiness of your forces, as well as improving their sustainability. This budget request will be cut. Would you agree that we should minimize any reduction in the O&M, combat readiness and sustainability accounts, and that these accounts should be the "last" cut, if at all, and not the "first" cut?

Admiral McDONALD. As a unified commander, it is my responsibility to maintain the operating forces under my command at the highest level of readiness for sustained combat operations. Since I must be prepared to conduct such operations today, I would support efforts to maintain those accounts which would contribute to the successful accomplishment of my mission. However, we cannot sacrifice future requirements in order to satisfy all current needs.

As I noted in my opening remarks, I believe that the fiscal year 1986 Defense budget presents the proper balance between current needs and modernization. We do have deficiencies, but the services' programs represent a continuing effort to maintain the readiness of existing forces, while improving sustainability and modernization.

Since the services' programs are balanced, I would hope that any effort to reduce the Defense budget will include a provision for DOD participation in that process. This is recommended in order that the Congress will have the benefit of knowing the potential impact of proposed reductions upon both current and future war-fighting capabilities.

CRITICAL SHORTFALLS IN READINESS AND SUSTAINABILITY

Senator LEVIN. In priority order, what are your most critical shortfalls in readiness and sustainability in the U.S. forces in your command? If we were to add funds to the fiscal year 1986 Defense budget, what would be your personal, professional, prioritized recommendations as to how much, and in what top five categories funding should be added? (Note: Program additions would have to be executable in that fiscal year.)

Admiral **McDonald**. Were a war to start today, our most critical deficiencies in the Atlantic Command would be in ordnance sustainability. The deficiencies exist, to some degree, across the entire spectrum.

Congressional support and funding over the past 4 years have been the primary factors in reversing the downward trend in ordnance procurement, and we continue to make significant progress. However, we still have a long way to go. Because of the time delay between procurement and delivery, ordnance funding initiatives are just now beginning to have a significant impact on our on-hand inventories. Perhaps the most significant support that can be provided by Congress for ordnance sustainability is the preservation of current and future funding requirements.

READINESS DEFICIENCIES IN ALLIES MILITARY FORCES

Senator **Levin** What are the most critical readiness deficiencies in each of our allies military forces, by country and in priority order, in your command area?

Admiral **McDonald**. The problems faced by our NATO allies mirror those of the U.S. Navy: ordnance sustainability; insufficient numbers of ships, aircraft and submarines; tight fiscal resources. As is the case in this country, progress is being made in all readiness areas. However, the economic conditions in these countries are such that the rate of improvement does not match ours. They are all hard-pressed to meet their goal of a three percent real growth in defense spending.

NEW ZEALAND'S STAND

Senator **Levin**. Admiral Crowe, as Commander in Chief of our Pacific Command, you are most affected militarily by New Zealand's recent decisions to bar visits of nuclear-armed and nuclear-powered warships, even if she has mutual security obligations to the United States and Australia under the ANZUS Alliance.

You have expressed serious concerns about this policy in your statement today.

New Zealand Prime Minister David Lange seems to be trying to have it both ways on this issue. He tells us and his constituents that New Zealand still is a "full" partner in the ANZUS Alliance, despite this policy against nuclear-related warships. He argues this policy does not change the nature of the ANZUS Alliance or change New Zealand's role in this alliance.

Why do you disagree with his assessment?

Admiral **Crowe**. Yes, I do disagree. The heart of any alliance is the willingness of the partners to share the risks and burdens of the alliance, as well as the benefits. I do not know of any case where this has been a strictly 50-50 proposition, but all members are expected to participate as mutually agreed and to the extent of their ability. PM Lange has, in denying port access to USN ships, refused to honor New Zealand's responsibility to share the burdens of mutual defense. By her actions, NZ has hampered the other treaty partners, Australia and the United States, from being able to effectively carry out their responsibilities related to the defense of NZ. As an island nation, NZ cannot be defended without use of maritime forces. These forces must have access to NZ ports to operate. PM Lange says that NZ does not want to be defended by nuclear forces. Since we have only one navy and it is indivisable into conventional and nuclear components, he has in effect said that the GNZ does not want the U.S. Navy to defend NZ. It is inconceivable to me in the light of his statement how we can turn around and say that the treaty remains in full force and that the U.S. will still defend NZ. In essence, NZ has unilaterally changed the operational nature of the ANZUS Treaty and thus, in my opinion, can no longer be considered as being a full partner under the treaty.

NEW ZEALAND PUBLIC SUPPORTS ANZUS ALLIANCE

Senator **Levin**. The New Zealand public, according to the latest polls, overwhelmingly supports continued participation of that nation in the ANZUS Alliance. Another percentage apparently favors the non-nuclear policy. How do you explain this apparent inconsistency or contradiction in New Zealand public opinion?

Admiral **Crowe**. PM Lange has been espousing the GNZ positions that (a) NZ still remains a full ANZUS member, and (b) there will be no nuclear armed or powered ships in NZ ports. These positions reflect what major segments of the NZ population want to hear. By the nature of the poll questions, it has not been made clear that these two popular positions are mutually exclusive. The either-or situation is not reflected. I believe the NZ people have honestly answered both questions in the affirmative. But to my knowledge they have not been asked which position they prefer if they have to make a choice.

Senator **Levin**. Has Prime Minister Lange exercised sufficient leadership within his own ruling Labour Party and with the general New Zealand public to try to alter this non-nuclear policy to permit port visits by all U.S. warships?

Admiral **Crowe**. I do not believe that it is within my purview to offer public analysis on the competence of foreign heads of state. However, I think it would be accurate to say that his actions have not been consistent with treaty obligations.

NEW ZEALAND NONNUCLEAR POLICY

Senator **Levin**. The New Zealand non-nuclear policy reflects a basic abhorrence with nuclear weapons and a desire to make that nation and the South Pacific region safer from the nuclear threat. It also is promoted to encourage nuclear arms control efforts. All Americans share these goals.

However, do you feel that, through the denial of port visits to U.S. warships whose missions are primarily to deter and fight a conventional conflict, the New Zealanders have reduced our conventional warfare capabilities and have reduced their and our overall security and actually increased the nuclear danger to themselves?

Admiral **Crowe**. NZ has not reduced USN capabilities; only its own defense. Warfighting characteristics built into our ships are unaffected by NZ's actions. How well our crews are trained and how well ship systems operate will determine their efficiency and effectiveness. However, NZ's actions render U.S. efforts to support regional stability and Western security interests in the South Pacific more difficult. By sending signals of weakened solidarity of allied Western nations, NZ has in some degree decreased global, as well as regional stability. With the recent renewal of U.S.-USSR arms control negotiations, the timing of NZ's actions is indeed unfortunate.

Senator **Levin**. Do you feel that they might have the correct objectives but have picked the wrong ways by which to achieve those objectives?

Admiral **Crowe**. Yes. The majority of the world's peoples favor abolishing nuclear weapons, including those in the United States. However, in the absence of verifiable arms reduction agreements it would be pure folly for the United States to unilaterally disarm. In the reality of today's world, one ingredient necessary for success in arms reductions negotiations is to demonstrate to potential adversaries the unity of Western nations. Actions such as NZ's port access ban manifests a rift in Western solidarity which has not gone unnoticed in the rest of the world.

Senator **Levin**. Prime Minister Lange has been arguing to his public that New Zealand can implement this non-nuclear policy and still enjoy the full benefits stemming from the ANZUS Alliance.

Are the tangible security and other benefits of the ANZUS Alliance worth more to New Zealand than they are to the United States? Could the U.S. obtain equal security and protection through alternative means?

Do you think that New Zealand should enjoy the full benefits of the ANZUS Alliance as long as she continues this non-nuclear policy?

Admiral **Crowe**. As a full partner under ANZUS, NZ received access to advanced technology and training methods, as well as shared intelligence data. The port visit ban has caused the United States to review its military cooperation with NZ and to adjust to the new circumstances of the ANZUS alliance. Thus far, the review has resulted in reducing the level of military contact with NZ to the level of a "friendly Western nation."

From the United States point of view, ANZUS has provided a framework for military cooperation with Australia and NZ. This trilateral association has also provided a sense of security to other South Pacific and Asian countries. The resulting stability has allowed economic and political progress throughout the region. The United States has enjoyed benefits from this stability and progress as has NZ, Australia and the other countries of the Pacific. In the current situation, the only winners are those who benefit from a split in Western solidarity. NZ loses by a significant reduction in her overall defense and the special relationships accruing to a reliable ally. Australia loses by gaining an increased burden in regional responsibility. Other South Pacific and Asian nations lose the spin-off stability benefits a strong ANZUS Treaty provided. The United States loses a traditional ally. The interlocking Western Alliance System becomes weaker when there are treaty problems between any Western nations. Maintenance of the ANZUS pact is in the United States interest; however, under no conditions can we let it detract from our global concerns. In sum, I would say the ANZUS Treaty carries more benefits for NZ than for the U.S. However, NZ cannot have it both ways. She cannot continue to enjoy the benefits flowing from ANZUS without also sharing the burdens and responsibilities. Our recent actions are designed to adjust our military relationship with NZ in recognition of the changed relationship we now have because she has opted not to share such burdens and responsibilities.

JAPAN'S SELF-DEFENSE CAPABILITIES

Senator LEVIN. Japan's present self-defense capabilities improvement program is established in what is known as the National Defense Program Outline, issued in 1976, and later policy statements by her Prime Ministers that she could under her constitution and would develop the capabilities to defend the sea lines of communication out to 1,000 miles from the home islands.

That 1976 program outline was supposed to be implemented by a defense spending program for 1983-1987 known as the Mid-Term Defense Plan.

Would you agree with the following statements from the 1983 DOD Report on Allied Contributions to the Common Defense, (known as the "Burdensharing Report":

"Japan has never been willing to address defense expenditures from the point of view of actual requirements. The 1983-1987 Mid-Term Defense Plan is a good example."

"The 1976 National Defense Program Outline did not address the serious issue of sustainability of Japan's defense forces; the requirement for sea lane defense protection, and has otherwise also grown seriously out of date."

Admiral CROWE. These statements are a generally correct description of the situation which has prevailed until very recently. However, the GOJ is now taking on meaningful defense missions. PM Nakasone is taking the lead on this, as shown in his February 1985 Diet testimony on the Japanese fiscal year 1985 defense budget. He argued that Japanese defense spending must be based on the military threat to Japan rather than on an artificial standard such as percentage of GNP.

Japanese defense planners are now preparing a new Mid Term Defense Plan (MTDP) (1986-1990), due to be completed in July 1985. While details have not been finalized, we hope it will go a long way toward achieving the capabilities required to carry out the defense goals Japan clarified for itself in 1981. In my view, Japan must provide adequate funding for its own self-defense.

Senator LEVIN. Would you agree with the following statement from the 1984 version of this report:

"Japanese progress toward completion of the 1983-87 MTDP is now at least a year behind schedule unless significant increases in the defense budget can be made in the remaining two years of the program. Major equipment purchases have fallen short of annual goals, and Japanese defense procurement plans have seriously neglected the stockpiling of ammunition for training and war reserve and the acquisition of spare parts. It is now highly unlikely that the JSDF will achieve its stated goal of having at least a 30-day supply of war reserve material by the end of the current MTDP. Shortfalls notwithstanding, various U.S. experts have questioned the adequacy of the current MTDP itself to provide Japan with the capability to accomplish the role and missions required of a credible defense."

Admiral CROWE. Yes, the statement is correct. The Japanese have also recognized these problems and are now preparing a new MTDP. However, unless greater increases in defense spending are achieved, the problems will not be solved.

Senator LEVIN. Would you agree with the following about the proposed increase in the Japanese defense budget for fiscal year 1985—the 6.9 percent increase Japan is arguing much better than many of us in Congress think it represents: (—Japan is arguing that the 6.9 percent increase is much better than many of us in Congress think it represents:)

"Despite the increase, defense officials indicated that the fiscal year 1985 program will still fall about 30 percent short of the goals outlined in the Japan Defense Agency's mid-term defense plan."

This statement refers to the present 1983-87 spending program and is contained in the February 1985 issue of Japan Economic Survey, published by the Japan Economic Institute of America, a registered agent of the Japanese Government and one which is funded by the Japan Ministry of Foreign Affairs.

Admiral CROWE. The 6.9 percent increase is both good news and bad news. The good news is that it shows Japan is committed to fulfilling the roles and missions it has set for itself. At a time when Japan's budget is being held at the near-zero growth level, this increase is noteworthy. It was exceeded only by the 10 percent increase for foreign assistance. The bad news is that it is still inadequate to meet the defense capabilities the Japanese government has pledged itself to meet. Because of political and economic factors, the Japanese are at least a year behind in their 1983-1987 MTDP, maybe further. The Japan Defense Agency is now preparing a new MTDP (1986-1990) which stretches procurement out over three more years. This means that the current defense buildup goals won't be achieved before 1991. Unfortunately, the Soviet threat in the Pacific is increasing more rapidly than Japan is increasing its defense capability.

Senator LEVIN. Would you agree that, as reported in the New York Times of April 13, 1984, implementation of even the 1983-87 defense spending/acquisition plan to fulfill the now-woefully inadequate (by our own government's words) goals of the 1976 defense program, has been delayed by at least three years to 1991?

Admiral CROWE. As I stated, the Japanese are at least a year behind in their 1983-1987 MTDP because of political and economic factors. The Japan Defense Agency is preparing a new MTDP for 1986-1990.

Senator LEVIN. This latest 6.9 percent increase even further delays this self-defense improvements program, does it not?

Admiral CROWE. Yes. The 6.9 percent will not meet the annual goals of the 1983-1987 plan. If this increase is matched in future years by a like increase, the Japanese are not likely to meet the objectives of their 1986-1990 MTDP.

JAPAN'S 1,000-MILE SEA LANE DEFENSE CAPABILITIES

Senator LEVIN. The U.S. Government has publicly stated that its own policy is for Japan to achieve the 1,000-mile sea lane defense capabilities by the year 1990.

Doesn't all this mean that Japan's burdensharing efforts are so meager that, not only do they contradict our own policies for defending the Pacific Region, but they violate blatantly her own policies?

Doesn't this mean that Japan is blatantly failing to carry its fair share of the mutual security burden?

Admiral CROWE. The Japanese are making progress in their self defense efforts. It is true, however, that these efforts are not adequate to fulfill either their self-chosen defense roles and missions or the objectives they have set for themselves in their MTDP. In fact, the Soviet threat in the northwest Pacific is growing at a faster pace than we or the Japanese are improving forces. The bottom line is that the Japanese are not increasing defense capability rapidly enough to carry out their self-defense responsibilities.

Senator LEVIN. How can this administration praise or excuse Japan's failure to carry out its mutual security commitments and to allocate sufficient annual defense spending to improve its self-defense capabilities as promised?

Admiral CROWE. In many respects our defense relationship with Japan has never been better. Japan contributes to our forward deployment strategy by providing us bases free of charge, while contributing host nation support equivalent to some $23,000 for every military member we station there. We just completed our first bilateral study for the defense of Japan, are engaged in an important bilateral study of what will be necessary to defend Japan' s sealanes, and are making gains in joint/combined military exercises with the Self Defense Forces. We have also just witnessed a courageous performance by PM Nakasone in Diet hearings on the defense budget. He asserted that it is unwise for Japan to tie defense spending to GNP rather than to the military threat to Japan and its responsibilities to support the world's democracies. On the other hand, we must acknowledge Japanese defense spending is not currently sufficient to meet the growing Soviet threat in the region, and use every opportunity to encourage the Japanese toward meeting their declared defense goals.

JAPAN'S MARITIME SELF-DEFENSE FORCE

Senator LEVIN. You say on page 4 of your statement that Japan's Maritime Self Defense Force "has made considerable progress towards achieving Tokyo's self-declared goal of defending sea lines of communication out to 1,000 miles."

Isn't it true that they have even further to go than they have come to achieve these capabilities? Won't they have to buy about 50-70 more high-performance P-3C ASW patrol planes and some 20 more frigates and destroyers?

Admiral CROWE. It is true that the Japan Maritime Self Defense Force is not yet in a position to defend the sealanes. However, if the 70 P-3Cs which will be coming on line, as well as frontline surface ships and submarines, are made sustainable in combat, they will contribute greatly to 1000 NM sealane defense capability.

Senator LEVIN. You said in an interview in the Dec 84/Jan 85 issue of the Pacific Defense Reporter that: ". . . the U.S. does not, of course set objectives for the Japanese Military Self-Defense Force. We leave that to the Government of Japan."

It was reported by the Japanese Press in 1981 that the U.S. Government presented Japan with its suggestions of how Japan could improve its self defense forces through the procurement of particular weapons, munitions, etc. to achieve the 1,000-mile self defense capability by 1990. Reportedly these suggestions were made at a joint U.S.-Japan Security Subcommittee meeting under the auspices of the Mutual Security Treaty.

Can you confirm this report for the record as well as supply an unclassified (if possible) list of the suggested weapons and other defense improvement programs?

Admiral CROWE. I must reemphasize that the Government of Japan sets its own defense objectives. The U.S. government speaks frankly to all close allies in private and does not make the content of these discussions public. It is my belief that the Japan Defense Agency knows what it needs to reach its defense goals, if funding is made available.

Senator LEVIN. It was reported in 1982 by the Japanese press that Defense Secretary Weinberger gave then Japanese Defense Minister Ito, at a meeting that year, a Defense Department estimate of how much Japan needed to spend annually to achieve the 1,000 mile defense capabilities by 1990—and that this estimate showed it could do that by spending less than 2 percent of its GNP annually on defense.

Can you confirm this and provide full details for the record.

Admiral CROWE. Administration policy on conversations between friendly governments on defense issues are conducted in private; however, I can tell you that most respected Japanese and U.S. defense authorities agree that Japan's self declared defense goals, which U.S. supports, could most likely be achieved at Japanese defense spending level of around 2 percent of GNP. The actual required figure could vary, depending upon such decisions as how Japan should procure defense equipment. These decisions are more appropriately made by the Japanese Government.

Senator LEVIN. Even though we are not dictating to Japan what it should buy and what it should spend, isn't it fair to say that it would cost them more than 1 percent of GNP annually on defense for them to meet their commitments by 1990?

Admiral CROWE. Recent debate in the Diet on the defense budget has exposed the difficulty of tying defense spending to an economic indicator that has nothing to do with defense needs. Many Japanese, including PM Nakasone, have stated that defense spending should, instead, be based upon the military threat to Japan. Most observers expect to see the one percent of GNP policy breached this year.

Senator LEVIN. Wouldn't these DOD suggestions be a good way for Congress to compare Japan's progress toward matching, with deeds, its words about meeting its mutual defense commitments—by comparing Japan's proposed annual defense budgets in total and in composition with what DOD suggested it should or could do each year to develop the 1000 mile self-defense capabilities?

Admiral CROWE. It is important to measure Japan's progress by looking at capabilities rather than by mere words. The criteria which should be used are roles and missions adopted by Japan.

Senator LEVIN. Is it not true that, even if it were to increase its defense spending annually as the U.S. has suggested, and to purchase the equipment and capabilities that DOD has suggested, these improvements could be focused on capabilities for self-defense and not for threatening the other countries of Asia?

Admiral CROWE. Yes. As long as Japan does not seek force projection systems or equipment such as aircraft carriers, the other countries of Asia probably would not see Japan's buildup as a resurgence of militarism.

MAINTAINING COMBAT READINESS

Senator LEVIN. You have been outspoken about the high priority you place on maintaining and improving day-to-day combat readiness of your forces, as well as improving their sustainability. This budget request will be cut. Would you agree that we should minimize any reductions in the O&M, combat readiness and sustainability accounts and that these accounts should be the "last" cut, if at all, and not the "first" cut?

Admiral CROWE. It would be inappropriate to prioritize O&M, readiness and sustainability over modernization. All are important and each warrants emphasis. However, a force structure is only a shell without the means to maintain it in peacetime and sustain it in war. To have the modern forces without the logistic support provides a false sense of security.

In order to protect modernization items, defense spending cuts are normally taken in the areas of repair parts and maintenance, and War Reserve Materiel programs such as ammunition and petroleum. Such cuts impact sustainability of forces and can limit our ability to respond.

We continually assess sustainability of our forces and recently completed a review of our progress over the past four years. That review showed significant improvement of on-hand balances of key general supplies, munitions and petroleum stocks. However, increasing USSR capabilities and the increased potential threat have caused our computed requirements to rise also. While we have considerably more logistics available to us today, reflecting the dollars invested by the services, we have still to meet the challenge of the increased requirements. I am satisfied the dollars spent have made our forces better than ever before but we must keep up the momentum if we are to achieve our minimal sustainability objectives.

For these reasons, I would respond, "yes". The balance between modernization and support for existing or new systems cannot be maintained if cuts are made to O&M, combat readiness, and sustainability in favor of modernization.

CRITICAL SHORTFALLS IN MAINTAINING U.S. READINESS

Senator LEVIN. In priority order what are your most critical shortfalls in readiness and sustainability in U.S. forces in your command? If we were to add funds to the fiscal year 1986 defense budget, what would be your personal, professional prioritized recommendations as to how much and in what top five categories which could be executed in that fiscal year?

Admiral CROWE. For sustainability, my primary objective would be to have sufficient capability to fight one day longer than any enemy. However, recognizing the enormous costs associated with attaining such a logistics objective, we have established a lesser but optimum affordable level of on-hand stocks that will support combat operations until resupply can be effected. In the key general materiel categories such as munitions, petroleum, critical spare parts, spare equipment and major end items, support should be given to the service POMs in order to continue progress towards the goal of minimal stocks. More specifically, our most critical shortages are in the area of munitions. We need to increase our stocks of air-to-air munitions for the Navy and Air Force, standoff munitions and force multiplier/modern munitions for ground forces. In all cases, however, there are still specific shortages, any one of which could constrain our combat capability. We focus our attention and budget requests in the sustainability area on improving these items. Overall, I would say we are not yet where we need to be, but could get there in just a few years if the threat does not continue to grow. However, this is not what we are seeing in the theater. In the last few years, the USSR military presence has greatly expanded.

ALLIES CRITICAL READINESS DEFENSE DEFICIENCIES

Senator LEVIN. What are the most critical readiness defense deficiencies in each of our allies military forces, by country and in priority order in your command area?

Admiral CROWE. Despite efforts by the Republic of Korea (ROK) and substantial assistance from the U.S., the ROK has not been able to close the military gap with the DPRK. While the ROK has devoted approximately 6 percent of its GNP to defense in recent years, the DPRK has spent an estimated 20–25 percent of its considerably smaller GNP throughout the 1970s and 1980s. The DPRK maintains about 856,000 men under arms, the fourth largest army in the communist world, compared to 605,000 for the ROK. These forces include 80,000–100,000 commandos, perhaps the world's largest such force. The DPRK also leads the ROK in ground weaponry and naval forces. The ROK is unlikely to overtake the DPRK militarily in the near future and the immediate U.S. goal must be to maintain and improve the ROK forces in order to deter and, if necessary, repel any North Korean military challenge.

Japan's Self Defense Forces lack adequate stockpiles of munitions for a mid to high-intensity conflict. Efforts are underway to overcome deficiencies in other significant areas such as air defense, anti-submarine warfare and command, control and communications.

The Royal Australian Navy would have an extremely difficult time defending the Northern Sea Lines of Communications because their F/A-18s are not operational, they have only 13 combat ships and there are logistical problems. Early warning radar coverage is limited and they have no airborne EW platform.

The most critical deficiencies facing the Armed Forces of the Philippines (AFP) in the short term are a lack of tactical communications for field units, a lack of mobility, a weak internal logistics system and a lack of trained personnel.

In Thailand the most immediate deficiency is the need for an improved internal logistics system. Their air defense capability also needs improvement.

Senator THURMOND. The hearing now stands adjourned.

[Whereupon, at 4:35 p.m., the hearing was adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1986

FRIDAY, MARCH 1, 1985

U.S. Senate,
Committee on Armed Services,
Washington, DC.

COMMANDERS OF THE UNIFIED COMMANDS

The committee met in open session, pursuant to notice, at 9 a.m., in room SR-222, Russell Senate Office Building, Senator Barry Goldwater (chairman) presiding.

Present: Senators Goldwater, Thurmond, Warner, Quayle, Wilson, Nunn, Exon, and Levin.

Staff present: James F. McGovern, staff director and chief counsel; Arnold L. Punaro, staff director for the minority; Jeffrey H. Smith, minority counsel; Christine C. Dauth, chief clerk; Jonathan L. Etherton, Richard D. Finn, Jr., Douglas R. Graham, John J. Hamre, William E. Hoehn, Jr., George K. Johnson, Jr., David S. Lyles, Mark B. Robinson, and Carl M. Smith, professional staff members; Judith A. Freedman, Russell C. Miller, and Patricia L. Watson, research assistants, and Mary J. Kampo, staff assistant.

Also present: Les Brownlee, assistant to Senator Warner; Henry D. Sokolski, assistant to Senator Quayle; John L. Roddy, assistant to Senator East; Mark J. Albrecht, assistant to Senator Wilson; Allan Cameron, assistant to Senator Denton; Janne E. Nolan, assistant to Senator Hart; Jeffrey B. Subko, assistant to Senator Exon; Peter D. Lennon, assistant to Senator Levin; James Steinberg, assistant to Senator Kennedy; and Phillip P. Upschulte, assistant to Senator Glenn.

OPENING STATEMENT BY SENATOR BARRY GOLDWATER, CHAIRMAN

Chairman Goldwater. The meeting will come to order.

The committee meets this morning to continue our review of the fiscal 1986 defense budget. Our hearing this morning is the third in a series at which we will receive testimony from our operational commanders or CINC's.

On Wednesday we heard from CINCSOUTH, CINCCENT, CINCLANT and CINCPAC. Today we will hear from the Supreme Allied Commander of Europe and the Commander in Chief of the Readiness Command.

It is a great pleasure to welcome Gen. Bernard Rogers who has been the Supreme Allied Commander in Europe since June 1979.

General, you have appeared many times before our committee and provided very candid and interesting presentations.

The importance of the relations with our NATO allies and importance of their contributions to NATO's defensive posture have never been greater nor do I believe more important. I think I speak for all the members of the committee when I say we are very much looking forward to your presentation.

I am also very happy and pleased to welcome Gen. Wallace Nutting, Commander in Chief of the Readiness Command. General Nutting is currently serving a second tour as CINC, having been Commander in Chief of Southern Command, CINCSOUTH, from 1979 to 1983.

General, we look forward to your testimony as well and extend to you a very sincere welcome.

I would like to ask Senator Nunn if he has any comment?

Senator **Nunn**. Thank you, Mr. Chairman.

I will put my formal statement in the record and join you in welcoming General Rogers and General Nutting.

I think of all the hearings we have here in the course of our considerable deliberations on the defense bill, the hearings with our CINCs are the most important. These are the people who are actually responsible for the employment of military force, the strategy that is under their command in the most important reaches of the world.

I have known General Rogers for many years. I am a great admirer of General Rogers and an admirer of what General Nutting is doing also.

We look forward to hearing from both of you this morning.

[The prepared statement of Senator Nunn follows:]

PREPARED STATEMENT OF SENATOR SAM NUNN

Mr. Chairman, I join you in welcoming General Rogers and General Nutting this morning. This hearing continues the very valuable process of the committee hearing at first hand from our major commanders what their problems are, what their priorities are for addressing those problems, and how the committee can help them to be better able to carry out their important missions.

I am particularly pleased that General Rogers is able to join us this year and want to congratulate him on the extension of his term.

We very much missed his presence last year, however, it was a relatively quiet year on the NATO front. General Rogers has always been extremely candid and forthright with this committee, both with regard to the problems as he sees them, and with respect to how those problems might be alleviated. I am looking forward with keen anticipation to your presentation.

I am also glad to welcome General Nutting. General Nutting, as Commander of the Readiness Command, is responsible for one of the most important areas of our military posture—readiness. He is also the Director of the Joint Deployment Agency and responsible for much joint contingency planning. These are not glamorous issues, or issues that involve vast sums of money. But they are absolutely vital.

As you know, Mr. Chairman, there was recently some concern that our increased investment in the Department of Defense had not resulted in a proportionate increase in force readiness. Indeed, some argued that readiness had either not improved, or had declined. I look forward to General Nutting's testimony on this and other important topics this morning.

Chairman **Goldwater**. I know both of you have prepared testimony. As in the past, if you would care to have the testimony placed in the record, it will be and you can brief us or proceed in any way you care to. The show is yours.

Senator NUNN. I might say, Mr. Chairman, before General Rogers begins, he wasn't here last year, but I want to assure him his absence had nothing to do with the initiatives I took up later, but we are glad he is back this morning. [Laughter.]

STATEMENT OF GEN. BERNARD W. ROGERS, COMMANDER IN CHIEF, U.S. EUROPEAN COMMAND

General ROGERS. The thought had crossed my mind.

Thank you, Mr. Chairman and Senator Nunn.

It is a great pleasure to appear again before this committee. I do appear as Commander in Chief of the European Command, but inasmuch as the primary function of the European Command is to support Allied Command, Europe, I wish at the outset to speak in terms of Allied Command Europe, and some of its issues.

I would like to do as you suggested, Mr. Chariman, submit my statement for the record and touch on some of the highlights.

Chairman GOLDWATER. That will be done.

General ROGERS. Thank you, sir.

NATO is completing its 35th year as the most successful peace movement in history. It has a mission of deterrence. I believe that there is today consensus on both sides of the Atlantic as to what the basic elements are for our deterrence.

First, an appropriate strategy.

Second, adequate military capability to implement that strategy.

And, third, evidence of the necessary unity and resolving on the political side to execute that strategy.

With regard to the first, NATO has a deterrence strategy of flexible response. This strategy of flexible response, in my opinion, is as appropriate as it was in 1967 when adopted and this was reaffirmed for the present and foreseeable future by NATO Foreign and Defense Ministers in their December 1984 meetings.

With respect to the second element, sufficient military capability, NATO must provide adequate forces for each leg of its triad. The major weakness, as many of us have been declaring, is the conventional leg of that triad.

I pointed out to this committee in the past that if Allied Command Europe were attacked conventionally, the NATO political authorities would face very quickly the decision whether or not to authorize the release of theater nuclear weapons.

This results primarily from lack of sustainability. My command gets stronger every year because of commitments that are met by nations, but the gap between our force capabilities and those of the Warsaw Pact continues to widen. This impacts on the credibility of NATO's deterrence because it compels the alliance to rely excessively on early first use of nuclear weapons.

In doing so, I do not believe it provides a credible basis for deterring what I believe to be the most likely threat the alliance faces; that is, Soviet intimidation and coercion of Western Europe resulting from the threat of massive conventional military superiority accomplishing its objective without firing a shot.

The military situation for NATO, though difficult, is not hopeless and it is not beyond restoration. As a defensive alliance, NATO does not need to match the Warsaw Pact one for one and the conventional capability improvements required must be perceived by the Warsaw Pact as offering NATO a reasonable prospect of frustrating a conventional attack by conventional means or at least without early resource to nuclear weapons.

Now, as SACEUR, I am encouraged by several difficult decisions taken over the past year which when implemented will improve Allied Command Europe's conventional posture. For example, the common funded infrastructure program has been tripled in size over the last slice group to three billion infrastructure accounting units from a level of one billion.

This increase will provide urgently needed facilities at reinforcement airfields.

Further, commitment to raise the level of ammunition stocks was also forthcoming from the Defense Ministers last December. But, to my mind, one of the most important actions taken by the alliance last year was accepting the long-term planning guideline for follow-on force attack.

These decisions will have a favorable impact on the length of time that Allied Command Europe will be able to defend conventionally.

In support of the third element of deterrence, evidence of unity and resolve to execute the strategy, the alliance continues to deploy the ground-launched cruise missiles and Pershing IIs on European soil. The nations renewed their commitment to improving conventional defenses and toward meeting the NATO force goals for 1985 to 1990.

The Secretary General was given a very comprehensive remit last December by the Defense Planning Committee to provide by May an outline plan of how to continue to improve conventional forces. The decisions of last year which I mentioned display unity of common purpose and resolve.

One of the Alliance's success stories, the common funded NATO airborne early warning system, continued its deployment and training on schedule.

Further, most member nations did increase their 1984 defense expenditures in real terms.

Continued U.S. leadership within the alliance is essential. Its position has been strengthened by demonstrating to its allies over the past several years that substantial force improvements are possible even under conditions of economic restraint.

By challenging the alliance to match its needs as best it can and not threatening to punish it if it fails, the United States can best get its allies to continue toward improving their conventional defenses.

STATUS OF U.S. FORCES IN EUROPE

Turning now, Mr. Chairman, to the status of U.S. forces in Europe, there are four priority tasks which have guided EUCOM over the past 5½ years.

The first task is to continue to take proper care of our troops and their families, with all that that entails.

The second task is to do better with the forces assigned by ensuring that they meet Allied Command Europe's standards for manning, equipping, training, maintaining, sustaining, and reinforcing.

The third task is to continue the essential modernization of our systems, but as we do, to seek the means to improve our ability to reduce to a manageable proportion the number of Warsaw Pact forces arriving at our defensive positions; in short, improve our ability to attack an aggressor's follow-on forces with conventional weapons.

The fourth task is to add to our force structure, and some active force structure growth is necessary to support modernization and requirements responding to the threat.

The support of Congress has ensured improvements being made over the past years in these priority areas. Despite substantial improvements, the forces are still not as capable today as they might be, nor can U.S. forces committed to early reinforcement of NATO meet their required timetables for deployment.

With the support of Congress we can remedy these shortcomings and thereby strengthen the deterrence of the alliance.

I would like to set forth some of my specific concerns. For the improvement of operational capability of U.S. forces in European Command, may I just remind you, Mr. Chairman and others, that operational capability consists of four factors: readiness, sustainability, modernization, and force structure.

Today the operational capability of the U.S. combat forces in Europe is at a higher level than at any time since I have been the CINCEUR. You, Members of Congress, are responsible and we in Europe are appreciative.

The quality of our troops and level of training are the highest I have witnessed in my 42 years of commissioned service. This Nation expects our service members to serve the interests of their Nation before their own. Our troops do just that. So, it behooves us to provide them with appropriate conditions of service.

In the area of readiness we have some deficiencies I wish to underscore, shortcomings in POMCUS equipment and facilities and the numbers of combat service support personnel to support both in-place and reinforcing forces. Congressional approval to continue the shipment of POMCUS equipment and to acquire storage facilities in Europe is essential.

The ability to move reinforcements from the United States to Europe and onward to their combat positions is also crucial to enhance conventional deterrence and defense.

I solicit continued congressional support for the unfunded portions of the strategic lift mobility programs.

One of my major concerns is inadequate combat service support structure to sustain EUCOM in the early days of a crisis or conflict. Today the Army's combat service support structure is inadequate to support not only the early arriving POMCUS unit, but also combat forces currently forward deployed in Europe.

Our ability to reinforce is also dependent upon the existence of adequate support facilities in Europe to command and control our reinforcing operations. I give you one example which has been before the Congress before: The Riechel building in Rheinberg in

Western Germany, a facility needed to ensure that our reinforcements are received and deployed in a timely manner.

Today this Government rents 35 percent of that facility at a cost of $640,000. We can purchase that building for $11.8 million and use the entire structure for our needs which are there; the German Government has agreed to purchase the land at a cost of $2 million.

I solicit the support of Congress to acquire this building.

European Command is actively engaged in securing wartime host nation agreements with our allies which can make up a substantial portion of the shortfall in U.S. combat service structure. Congressional funding for the U.S. share of these wartime host nation agreements remains cost effective and an essential step in enhancing readiness.

SUSTAINABILITY

Turning to sustainability, the levels of sustainment of U.S. forces in Europe are higher in most areas than those of our allies. Some shortages in selective munitions exist, however, such as air-to-air missiles and certain artillery munitions. The stockage level of major end items of Army equipment and war reserve kits for the Air Force, those levels are too low. These that I have mentioned can be termed as "war stoppers."

Early deployment to Europe of the reinforcing U.S. aircraft can make a substantial contribution to deterrence or to the outcome of a conflict. The minimum essential facilities are necessary for those colocated operating bases, 70 in number. Under the current level of infrastructure funding we anticipate that all minimum essential facilities will be programmed by 1987, all shelters programmed by 1995, with 60 percent of the latter programmed in the current infrastructure slice group, 1985–90.

With respect to the NATO infrastructure program, I have been aware for a number of years of congressional concern about recoupment of U.S. funds used in the past to prefinance projects which qualify for common funding. Last year's MILCON appropriation of the continuing resolution restricted my expenditure of appropriated U.S. infrastructure funds in fiscal year 1985 to $4 for every $1 I could recoup. In my opinion, that constraint is unwarranted because I believe our record is better than the Congress realizes.

In 1980 we in USEUCOM began an aggressive program to manage recoupment. $235 million has been recouped or deobligated since 1980 out of a total of $473 million which I owe to the Congress. The remaining $238 million is programmed for recoupment in the slices from 1985 through 1990.

But what is not understood is that of that remaining $238 million there is only $32.5 million out there that has progressed sufficiently far through the process from contracting to facility acceptance to become eligible for recoupment at this time.

I believe that scrutinized carefully, our record of recoupment is adequate to warrant elimination of the 1985 congressional restriction and request that it be removed.

A final readiness and sustainability area that requires significant improvement and congressional support is our wartime capability to provide hospitalization and medical evacuation for our wounded. If war were to break out in Europe in the near future, we could not cope with the anticipated casualties. So, I solicit full funding of the program in the budget.

MODERNIZATION

Modernization is another essential element of operational capability, and thanks to the Congress, modern systems are being deployed. I would hope that the budgeted levels would be funded and that research and development of subsequent generations would continue apace.

Let me talk now about some of EUCOM's most essential needs.

The most important modernization program for European Command in its primary role of supporting Allied Command Europe, is to improve the ability to attack follow-on forces. This requires surveillance and target acquisition, fusion, command and control, attack capabilities beyond those that we have traditionally needed for the more generalized and centralized air interdiction program.

Significant improvements in technology are at hand which will correct some of the deficiencies in surveillance, reconnaissance and target acquisition, JSTARS, ASARS and PLSS, and TR-1 aircraft, and so on. We are also making progress working with our allies in the area of joint tactical fusion. To provide proper mix of systems for a tactical follow-on mission, the United States and its allies need to exploit their current systems as well as exploiting emerging technologies as appropriate for application to the follow-on force attack mission component.

Another essential modernization requirement for EUCOM is a modern chemical retaliatory capability. With congressional support we have done relatively well in improving our capability for defense. but as you saw yesterday, even the best defensive protective gear will seriously degrade the effectiveness of our combat troops and I am sure you received the estimate of as much as by 30 to 50 percent. The Soviets can force our troops into debilitating protective gear while their forces perform unencumbered. We need the modern chemical munitions to provide a credible retaliatory capability to deter the use of chemical weapons by the Soviets so that we will arrive at a situation similar to that in World War II where neither side used chemicals because of the retaliatory capability possessed by the other side.

CHEMICAL CAPABILITY

We have a limited chemical capability in Europe today, but it is inadequate, obsolescent, and difficult to store and maintain. In fact, the majority of our worldwide current stockpile is obsolete, stored in bulk containers or has no usable delivery means available.

I solicit the support of this committee for production of binary weapons in the appropriate configuration, and this comes, I know, as no surprise to the committee because it has been my position since 1975. We need a modern, usable retaliatory capability if we are to deter the Soviet use of chemical weapons and if we are to negotiate from a position of strength in trying to achieve our ultimate goal which has to be the elimination of chemical weapons from the face of the Earth.

TERRORISM

Terrorism continues to pose a serious threat to our forces. We have done much to increase our capability to defend against this threat. Additional steps must, in our view, be taken. We place a high priority on combating terrorism and are working closely with our allies. Continued congressional oversight of this and the support of Congress are needed.

Finally, modernization of U.S. special operation forces is also needed.

Now, I wish to turn to the force structure element of operational capability. The major area of my concern is the current European troop strength ceiling of 326,400 imposed upon me by the Congress. This ceiling is having an adverse impact across the board on U.S. conventional forces in Europe.

My headquarters at EUCOM has devoted considerable time and effort to develop a management system not only for those forces assigned to European Command, but also for those "stove-pipe" organizations that report directly back to Washington.

I now have the authority to report changes in their personnel levels. Today we have eliminated over 10,000 military authorizations in order to meet the ceiling and still allow for essential modernization.

Here is what I am faced with. I am faced with sending back to the United States units which we need for conventional defense or deferring deployment to Europe of units we also need, or doing both.

Right now I must trade off manpower spaces from required conventional capability for spaces for ground-launched cruise missiles to permit their continued support. I believe that we now have the management of all European spaces—to include those of the stovepipe commands—under firm control.

RESCIND EUROPEAN TROOP STRENGTH CEILING

So, I ask that the Congress rescind this European troop strength ceiling in Europe and manage the size of the forces through the end strength of the individual services.

Senator **Nunn**. Mr. Chairman, may I ask one question there, if I can interrupt.

General Rogers, on that point, the number that you have recited here is the same number that the administration requested last year.

General **Rogers**. I understand that, Senator Nunn, but I also understand that it is the position of the Defense Department that that ceiling should be eliminated. I have that on good authority from the Secretary of Defense.

Senator **Nunn**. First, they need to request a different number because the ceiling is what they requested last year. That was a Defense Department request. It seems to me they are in a somewhat peculiar situation to be complaining about adverse impact of a ceiling which is precisely the number in their budget request.

General **Rogers**. Senator Nunn, that number was adequate, although I have had to take some actions of deferring the deployment of certain personnel into the theater and we have civilianized beyond what we would like to do in the U.S. Air Force, Europe.

But that number that was selected, that 326.4, was applicable for fiscal year 1985. It is not applicable for fiscal year 1986.

However, I think the Defense Department in the report submitted by the Secretary of Defense has agreed to 326.4 for 1986. But in the future I need about 10,000 more spaces primarily for the Air Force to bring in new systems that I need to provide a better conventional capability which all of us want.

Senator **Nunn**. Now you are asking us to go above what the administration is requesting this next year?

General **Rogers**. Not now. I have already given them up.

Senator **Nunn**. What are you asking for then?

You say it has not had an impact yet, but it will in the future. You say you go along with the administration's request this year.

What are you asking?

General **Rogers**. Wait a minute, Senator. I don't think I said it has had no impact yet.

What I have said is that that figure was accepted by the Defense Department. I have deferred the deployment of a C-130 squadron of 830 personnel and their aircraft which we need. We need five in the theater; we have two.

I convinced the Defense Department to give me a third one. Now I have to defer its coming into the theater in fiscal year 1986 because of the end strength.

What I am requesting is that, as has been done in the past, the Congress control end strength by the ceiling you put on the end strength of services and let the services and the Defense Department put those people where they need them most.

Don't take a theater, as you have done, and give a ceiling to me which then means I have to send back all the OV-10 aircraft, 800 people with them, all of them back here. We don't have a single one in the theater. I have to defer the forward deployment of other units, I am even charged with the GLCM strength against the ceiling.

I need to bring in additional TR-1 personnel for target acquisition. I am asking that you remove the ceiling. Have a member of this staff come and look over our shoulder in European Command as to how we are managing the strength, but have the Congress remove that ceiling.

Senator **Nunn**. One follow-up question and I will get off this.

If we do remove the ceiling this year, is it your position that you will be able to convince the Department of Defense to increase what they have put on as their ceiling? I thought you said you have given up on that this year.

It seems to me you are arguing for us to do something which will have no effect if you have given up on convincing them to increase their request.

General **Rogers**. Let me give you the "Who struck John," Senator.

We have always had the position in my command that there should be no ceiling. The Defense Department has agreed with that. The Secretary of Defense's report to the Congress was published and it showed it would be 326.4 for end 1986.

I solicited the support of the Defense Department not to accept that ceiling, but rather to accept the ceiling of about 328.5 or 0.7, I have forgotten exactly—it is 329.9 thousand. My suggestion was not accepted. It was decided that the Defense Department would stay with 326.4 with the understanding that it would continue to work with the Congress to try to get the removal of the ceiling. That is where we are.

As a consequence, I have taken those steps or we are taking those steps so that I will be at the appropriate end strength by the end of fiscal 1986.

Senator NUNN. Thank you, Mr. Chairman.

Chairman GOLDWATER. One point, General, that you touched on and have failed or I didn't hear it correctly.

You do not have the personnel to maintain the OV-10's?

General ROGERS. We eliminated the OV-10 function in the theater and sent all the resources home when we were operating under the earlier ceiling of 315.6. But when we had the 315.6 we were not charged with the ground-launched cruise missiles.

So, yes, I have eliminated that function from the theater.

Chairman GOLDWATER. Eliminated the OV-10?

General ROGERS. That is correct and have sent them back home.

Chairman GOLDWATER. Is the equipment here?

General ROGERS. The equipment is here, personnel are here, about 800.

Chairman GOLDWATER. Isn't that an observation craft that you could use?

General ROGERS. It has a function in the theater.

Chairman GOLDWATER. Be honest about it.

General ROGERS. It is.

Chairman GOLDWATER. It is a slow aircraft, but it does have some observation facility. I wonder if it is any good in that theater?

General ROGERS. Let me put it this way, Senator.

It was one function that we thought we could eliminate when we looked to eliminate functions rather than salami slicing all units there.

First, you look for a function. We thought we could eliminate that function. It has caused some gas pains among our allies that we have done this, but I think the level of disturbance is less for the Air Force than with the allies on that.

Chairman GOLDWATER. Did the Germans ever have that in their inventory?

General ROGERS. No, sir.

Chairman GOLDWATER. Thank you very much.

STRATEGY OF DETERRENCE

General ROGERS. I have just a few other points I want to make and that is to underscore again that I believe the strategy of deterrence, flexible response, remains sound.

Improvements in conventional capability are essential and achievable, both for the allies and for this country. EUCOM needs your support in some key defense programs which I have listed near the end of my statement which I won't take the time to list here.

I just point out at the end of my statement that the Soviet Warsaw Pact military growth machine continues to rumble on unabated and we need the additional collective conventional force of all our allies in order to deter that strength from being used against us.

The cost of that deterrence will be high and it always has been. I want to point out, as I do in the conclusion of my text, that the recent trends in U.S. defense improvements have been significant and I believe the U.S. Armed Forces have the highest quality troops in their history.

I want this committee to understand that the operational capabilities, including those four elements I have mentioned of the forces in Europe, have improved significantly in recent years.

I want you to also know that I can understand and appreciate the desires and need to reduce budget deficits and the desires to reduce the defense budget along with reductions in social and public programs.

So, it would come as no surprise to at least the members of the committee present that I happen to believe, as I have said before to this committee, that the highest moral imperative for a democratic government would seem to be to provide that most important of all social services, which is the one that keeps us all free, alive, and at peace. I hope that thought might be kept in mind during your deliberations of the budget.

Thank you, sir.

[The prepared statement of General Rogers follows:]

PREPARED STATEMENT BY GEN. BERNARD W. ROGERS, COMMANDER IN CHIEF, U.S. EUROPEAN COMMAND

INTRODUCTION

Mr. Chairman and distinguished members of the committee. It is a pleasure to appear again before this committee to discuss the status of U.S. forces in Europe.

Since the U.S. contribution to Allied Command Europe (ACE) is represented by the United States European Command (EUCOM), I would like first to touch on the key security issues currently facing ACE. These issues provide the focus for the individual defense efforts of each of the Alliance nations and for the collective Allied attention to common security goals and objectives.

NATO SECURITY ISSUES

NATO is completing its 36th year. It is the most successful peace movement in history. It is an alliance whose mission is deterrence. Although within the Alliance there continue to be some arguments about the form and size of the nations' security efforts, there is a consensus on both sides of the Atlantic that the essential elements of deterrence are: An appropriate strategy, sufficient military capability to implement the strategy, and evidence of the required political unity and resolve to execute the strategy.

Appropriate strategy

With regard to the first element, an appropriate strategy, NATO's is a deterrent strategy of Flexible Response supported by a triad of military forces: strategic nuclear, non-strategic nuclear and conventional. Inherent in its strategy is an agreed Allied commitment not to be the first to resort to military force; however, NATO retains the option to be the first to use nuclear weapons to defend itself if attacked. Combining a certainty of NATO response to aggression with the uncertainty of the precise nature and scope of that response strengthens deterrence by making it impossible for the Soviets to calculate with confidence the risks they would incur by initiating any form of aggression. It is this uncertainty, this incalculability which is the vital factor in NATO's equation of deterrence. This strategy of Flexible Response was reaffirmed as appropriate for the present and foreseeable future by the NATO Foreign and Defense Ministers in their December 1984 meetings.

Sufficient military capability

Regarding the second element, sufficient military capability, NATO must provide adequate forces for each leg of its triad to sustain the necessary deterrent balance of forces with those of the Warsaw Pact. The United States and the United Kingdom have embarked on programs to modernize their strategic nuclear forces; the deterrent value of those forces will remain high, provided the modernization programs are fully implemented. The NATO decision of December 1979 to modernize NATO's intermediate-range nuclear forces addressed major shortcomings in that important leg of our triad. It only remains for the Alliance to continue the implementation of that modernization—which we started in December 1983 and are continuing on schedule despite Soviet attempts to prevent us—and we will fill the gap in that element of our spectrum of deterrence.

For some years we at SHAPE have been stating that NATO's major weakness is in the conventional leg of the triad. I have pointed out to this committee in the past that if ACE were attacked conventionally, NATO political authorities would face fairly quickly the decision to authorize the release of theater nuclear weapons. This situation results primarily from a lack of sustainability with trained manpower, ammunition and war reserve materiel. Although ACE gets stronger each year, the Warsaw Pact continues to outpace Allied efforts. The continually widening gap between NATO and Warsaw Pact conventional capabilities impacts the credibility of NATO's deterrence because it compels the Alliance to rely excessively on the early first-use of nuclear weapons. While the possibility of first-use of nuclear weapons retains significant deterrent value, the threat of early first-use does not compensate for pronounced conventional disadvantages. Such heavy reliance on early nuclear first-use does not provide a credible basis for deterring what I believe to be the most likely threat the Alliance faces: Soviet intimidation and coercion of West European nations resulting from the threat of massive conventional military superiority.

Maintaining the political and economic freedom of action of the West European nations is an American security interest as well as a European one. If the balance between NATO and Warsaw Pact capabilities reaches the point where the military situation—even for a defensive alliance—is beyond restoration, there is the very real danger that political and economic freedom of action in Western Europe could erode, as Western leaders make decisions in the shadow cast by Warsaw Pact military might.

The military situation for NATO, though a difficult one, is not hopeless; it is not beyond restoration. As a defensive Alliance, NATO does not need to match the Warsaw Pact one for one in any category of force comparison. The conventional capability improvements required by the NATO strategy of Flexible Response are limited to those which would be perceived by the Warsaw Pact as offering NATO a "reasonable prospect" of frustrating a non-nuclear attack by conventional means, or at least without the early resort to nuclear weapons. Such a conventional posture would:

Preserve the integrity of our conventional defenses long enough to permit a deliberate and determined decision by NATO political authorities to resort to nuclear weapons;

Protect our nuclear delivery means and essential command and control systems until they are needed; and,

Face the Warsaw Pact with two options, if it attacked: withdraw or be the first to escalate to the use of nuclear weapons, which they do not wish to do.

As SACEUR, I am encouraged by the several difficult decisions taken over the past year which will improve ACE's conventional posture. For example, the common-funded infrastructure program has been tripled in size to 3 billion Infrastructure Accounting Units (IAUs) from a level of 1 billion IAUs in the last slice group. This increase will provide urgently needed facilities at reinforcement airfields, including hardened aircraft shelters. A further commitment to raise the level of ammunition stocks was also forthcoming from Defense Ministers last December. In my mind, one of the most important actions taken by the Alliance was accepting last fall the Long Term Planning Guideline for follow-on force attack (FOFA). I believe that the resultant improvement of our ability to find and strike—with conventional weapons—the Operational Maneuver Groups, second and third echelons and reserves of the Warsaw Pact before they can reach our defensive positions may well determine the measure of success of our conventional defense. These decisions will have a favorable impact on the length of time that ACE will be able to defend conventionally.

Unity and resolve

In support of the third element of deterrence, evidence of unity and resolve to execute the strategy, the Alliance continues to deploy the INF weapons on European soil. In the December 1984 meetings of Foreign and Defense Ministers, NATO nations renewed their commitment to improving conventional defenses and toward meeting the NATO Force Goals for 1985–90. The decisions of last year which I mentioned earlier displayed unity of common purpose and resolve to implement the strategy. One of the Alliance's success stories, the common-funded NATO Airborne Early Warning System, continued its deployment and training on schedule. Further, despite severe funding constraints, most member nations did increase their 1984 defense expenditures in real terms.

U.S. leadership

Continued U.S. leadership within the Alliance is essential. Its leadership position has been strengthened by demonstrating to its Allies over the past several years that substantial force improvements are possible even under conditions of economic constraint. By challenging the Alliance to match its deeds as best it can and not threatening to punish it if it fails, the U.S. can best get its Allies to continue to work towards improving their conventional defenses. With the support of the Congress, NATO can continue to make progress.

PRIORITY TASKS FOR U.S. EUROPEAN COMMAND

Turning now to the status of the U.S. forces in Europe, there are four priority tasks which have guided U.S. European Command over the past five years. In the face of continuing Soviet military improvements and the widening imbalance of conventional capabilities, these tasks are more important than ever.

The first task is to continue to take proper care of our troops and their families. This means supporting them with adequate pay and material compensation; medical care; housing; family care; and appropriate working, living and recreational facilities. It also means providing them with a high level of "psychic compensation" which comes from rigorous, mission-oriented training; from ability to keep their equipment maintained properly; from being a part of a capably-led team; and from knowing that their leaders "give a damn" for them and their families. Much of this "psychic compensation" is related to adequate funding of operations and maintenance (O&M) programs.

The second task of U.S. European Command is to do better with the forces assigned by ensuring they meet Allied Command Europe (ACE) standards for manning, equipping, training, maintaining, sustaining, and reinforcing. These forces, along with those of the Allies committed to ACE, will occupy our forward defensive positions and must hold against the lead attacking echelon of the Warsaw Pact.

USEUCOM's third task is to continue the essential modernization of our weapons systems and, as we do, seek means to improve our ability to reduce to manageable proportions the number of Warsaw Pact forces arriving at our defensive positions. In short, improve our ability to attack an aggressor's follow-on forces with conventional weapons.

Our fourth task is to add to our force structure, primarily with mobilizable, trained reserves. However, even with due regard to stringent budget considerations and other priority tasks, some active force structure growth is necessary to support modernization and requirements responding to the threat.

These tasks, if fulfilled, will add to the collective deterrent, improve the ability of U.S. forces to defend forward at the General Defensive Position and give them a greater capability to attack Warsaw Pact follow-on forces. Support of the Congress has ensured improvements being made over the past years in these priority areas.

Despite substantial improvements of U.S. forces in recent years, they are still not as capable today as they might be, nor can U.S. forces committed to the early reinforcement of NATO meet their required timetables for deployment. These deficiences hinder our ability to fulfill our mission in Europe. With the support of Congress, we can remedy these shortcomings and thereby strengthen deterrence.

With that thought in mind, I wish now to set forth some of my specific concerns for improvement of the operational capability of U.S. forces in EUCOM. I remind you that operational capability consists of four factors: readiness, sustainability, modernization and force structure.

USEUCOM OPERATIONAL CAPABILITY

Today, the operational capability of U.S. combat forces in Europe is at a higher level than at any time since I have been the USCINCEUR. You members of Congress are responsible for providing the means to achieve that level, and we in Europe are most appreciative. People are the major ingredient in force capability; the quality of our troops and their level of training are the highest I have witnessed in my 42 years of commissioned service. The fall 1984 exercises in Europe and last month's Reforger exercise demonstrated the enthusiasm and high morale of our troops, fostered in part by excellent training, good unit leadership and by the fielding of more capable weapons systems. We must continue to meet their needs so that they will be able to focus on their military responsibilities. This nation expects our service members to serve the interests of their nation before their own; our troops do just that. It behooves us to provide them with appropriate conditions of service.

Readiness

In the area of readiness, we have some deficiencies. There are shortages in POMCUS equipment and facilities and in the numbers of combat service support personnel to support in-place and reinforcing forces. To date only one-half of the total planned POMCUS tonnage has been placed in European storage sites. Congressional approval to continue the shipment of POMCUS equipment and to acquire storage facilities is essential. The POMCUS program was begun a number of years ago in recognition that additional U.S. forces were required to meet the threat anticipated in the early days of crisis or conflict in Europe. POMCUS was judged to be more cost effective and more efficient than alternatives requiring additional high cost strategic air and sealift. Thus, the U.S. made the commitment to its Allies to fill 6 division sets of POMCUS in order to provide the rapid reinforcement of Western Europe.

The ability to move reinforcements from the U.S. to Europe and onward to their combat positions is crucial to enhancing conventional deterrence and defense. The programs that the Congress has supported in the past few years (CRAF, stretched C-141, KC-10, C-5B, C-17, and fast sealift), when implemented fully and in conjunction with complete POMCUS fill, will go far toward meeting our reinforcement needs. I solicit continued Congressional support for the unfunded portions of these essential mobility programs.

One of my major concerns is the inadequate combat service support (CSS) structure available to sustain USEUCOM in the early days of a crisis or conflict. A critical constraint on combat effectiveness is the availability of people and facilities to guard, service and repair equipment and to distribute supplies to the combat forces. These are functions of CSS units. Today, the Army's CSS structure is inadequate to support not only the early arriving POMCUS units but also the combat forces currently forward deployed in Europe. Those CSS units presently in theater are generally understrength—some as much as 70 percent; additionally, in-theater CSS units comprise only 56 percent of those required to support the U.S. combat forces permanently stationed in Europe. In the case of the deploying POMCUS forces, the situation is worse. Much of their CSS is to be provided by CONUS-based reserve component units, many of which are understrength and underequipped. Continued support is needed to enhance the early availability of reserve component (RC) CSS units. Because of the state of equipment fill, many RC units will remain in CONUS awaiting delivery of essential equipment. That equipment must be provided in peacetime. The availability of strategic sea and airlift for these units must be increased.

Our ability to reinforce is also dependent upon the existence of adequate support facilities in Europe to command and control our reinforcing operations. Facilities are required to house the support personnel who must receive U.S. Army units deploying from CONUS and prepare them for onward movement to combat. In peacetime these forward deployed support personnel draft plans to accomplish the reception and onward movement missions, provide interface and joint planning with host nation personnel who will assist in the accomplishment of this mission in wartime and provide the command and control for POMCUS and ammunition storage facilities which support U.S. forces stationed in that part of West Germany. The Riechel building at Rheinberg in West Germany is an example of such a facility needed to ensure that our reinforcements are received and deployed in a timely manner. It is ideally located astride the lines of communication for the Northern Army Group and in the geographic center of POMCUS and other supply and support sites. The U.S. presently leases 35% of the facility at a cost of $640,000 annually. At current exchange rates, the cost to purchase the building would be $11.8 million. The German government has agreed to purchase the land for U.S. use at a cost of $2 million. Without such a facility, our ability to command and control reinforcing operations in the Northern Army Group area of Central Europe is in question and our ability to meet the U.S. pledge of 10 divisions and associated air squadrons forward deployed by M+10 days is in doubt. I solicit the support of Congress to acquire the Riechel building.

Following up on a SECDEF initiative, USEUCOM is actively engaged in securing Wartime Host Nation Support (WHNS) Agreements with our Allies which can make up a substantial portion of the shortfall in U.S. combat service support structure. Our most important achievement to date has been the WHNS agreement with the Federal Republic of Germany which formalizes the German commitment to dedicate German reserve units and civilian resources to provide logistic and other support for U.S. reinforcing forces. We have similar WHNS agreements on a smaller scale with ten other Allied nations which obligate them to provide support to U.S. forces. Congressional funding for the U.S. share of these WHNS agreements remains a cost effective and essential step in enhancing the readiness of U.S. forces committed to NATO.

Sustainability

Let me now turn to the sustainability factor in the equation of operational capability. The levels of sustainment of U.S. forces committed to NATO are generally higher in most areas than those of the other Allies. Further improvements continue to be made. However, there are some shortages in selected munitions such as air-to-air missiles and certain artillery munitions. Although I have noted considerable improvement over the past five years, the stockage levels of major end items of Army equipment and war reserve kits for the Air Force are too low. Exhaustion of their supply, as well as of the selected munition items, could be termed a "war stopper".

Our ability to sustain combat operations is also influenced by our ability to protect critical assets. The early deployment to Europe of the reinforcing U.S. aircraft can make a substantial contribution to deterrence or to the outcome of a conflict. There are more than 70 Collocated Operating Bases (COBs) which the Allies have made available for use by reinforcing aircraft. Sufficient facilities and aircraft shelters at these COBs would permit these aircraft to maintain combat operations once deployed and enhance their survivability. However, completion of construction of Minimum Essential Facilities (MEF) is necessary before they can sustain combat operations. Funding for MEF and protective shelters is provided by NATO infrastructure funds. Both the MEF and shelter programs are well up in the prioritization of infrastructure projects. Under the current level of infrastructure funding, we anticipate that all MEF will be programmed by 1987 and all shelters programmed by 1995, with 60% of the latter programmed in the current infrastructure slice group, 1985-90.

With respect to the NATO infrastructure program, I have been aware for some time of congressional concern about recoupment of U.S. funds used in the past to prefinance projects which qualify for NATO common funding. In fact, last year's MILCON appropriation of the Continuing Resolution restricted my expenditure of appropriated U.S. infrastructure funds in fiscal year 1985 to 4 dollars for every 1 dollar I recoup. In my opinion that constraint is unwarranted because I believe our record is better than Congress realizes.

In 1980 we in USEUCOM began an aggressive program to manage the recoupment of prefinanced infrastructure funds more effectively. 235 million dollars has been recouped or deobligated since 1980 out of a total $473 million which was recoupable. The additional $238 million is programmed for recoupment in the slices from 1985 through 1990. Together, these 2 figures total 100% of all congressional prefinancing in Europe. What may not be understood, however, is that of the remaining $238 million, only $32.5 million has progressed sufficiently far through the process from contracting to facility acceptance to be eligible for recoupment at this time. I believe our record of recoupment is adequate to warrant the elimination of the 1985 congressional restrictions and I request that they be removed.

A final readiness and sustainability area that requires significant improvement and congressional support is our wartime capability to provide hospitalization and medical evacuation for our wounded. If war were to break out in Europe in the near future, we could not cope with the anticipated casualties. Among the necessary actions are procurement and prepositioning in theater of fleet, contingency, and general hospitals; associated medical treatment assemblages; medical resupply packages; and additional air and surface medical evacuation equipment assets for availability on M-Day. I solicit full funding of the program.

Modernization

Modernization is another essential element of operational capability. Thanks to the Congress modern aircraft, tanks, ships, multiple launch rocket systems, fighting vehicles, communication equipment and other systems are being deployed. I would hope that the budgeted levels would be funded and that the research and development of subsequent generations would continue apace. Today I will limit my discussion in this area to EUCOM's most essential needs.

Forward deployed NATO forces and early reinforcing forces must be able to absorb the initial thrust of a Warsaw Pact attack. To reduce to a manageable ratio the numbers against which we must continue to defend successfully at our defensive positions, we need the ability to delay, disrupt and neutralize the follow-on forces of the Warsaw Pact—the Operational Maneuver Groups, the second and third echelons, the reserves. Being perceived as being able to hold the lead echelon of a Warsaw Pact attack while successfully attacking the follow-on forces will improve the credibility of our deterrence by creating the "reasonable prospect" of frustrating a Pact's conventional attack. The most important modernization program for USEUCOM in its primary role of supporting Allied Command Europe is to improve our follow-on forces attack (FOFA) capability.

To disrupt the attacker's ability for continuous operations, to break the momentum of his attack and to maintain a successful forward defense, requires (1) surveillance and target acquisition; (2) fusion, command and control; and (3) attack capabilities beyond those which we have traditionally needed for the more generalized and centralized air interdiction program. Significant improvements in technology are at hand which will correct many of the deficiencies in surveillance, reconnaissance, and target acquisition. The Joint Surveillance and Target Attack Radar System (JSTARS), the Advanced Synthetic Aperture Radar System (ASARS) and the Precision Location Strike System (PLSS)—once fielded in sufficient numbers—will provide the surveillance and target acquisition capability. When coupled with TR-1 aircraft, ground stations to receive and display target data and the Joint Tactical Information Distribution System (JTIDS), we will have the means to perform the first of the three elements necessary to support attack of follow-on forces.

The U.S. has provided USEUCOM a test bed for a joint tactical fusion center—limited operational capability, Europe known as JTF-LOCE. With JTF-LOCE, EUCOM will work with other Allies which are developing a fusion system to establish an ACE Battlefield Intelligence Collection and Evaluation System (BICES). Much effort and time is needed to get BICES functioning and tied into the appropriate command and control systems.

To provide the proper mix of cost-and mission-effective direct and indirect attack and standoff weapons systems for the FOFA mission, the U.S. and its Allies need to exploit their current systems to determine if their range, accuracy and lethality can be improved. In the meantime, the Allies collectively should exploit emerging technology—as appropriate—for its application to the FOFA mission component.

Another essential modernization requirement for EUCOM is a modern chemical retaliatory capability. With congressional support, we have done relatively well in improving our capabilities for defense against chemical weapons and in improving our survivability. However, even the best attainable defensive protective gear will seriously degrade the effectiveness of our combat troops by as much as 30 to 50 percent. With its modern chemical capability—both offensive and defensive—the Soviets can force our troops into the debilitating protective gear in critical areas of their choosing while their forces can perform unencumbered. That would be a major disadvantage for our forces. We need the modern chemical munitions which will provide a credible retaliatory capability and deter the use of chemical weapons by the Soviets. Then the situation would be as it was in World War II when both sides possessed chemical weapons but neither side used them—even *in extremis*—for fear that the other side would retaliate.

We have a limited chemical capability today but it is inadequate, obsolescent and difficult to store and maintain. In fact, the majority of our worldwide current stockpile is obsolete, stored in bulk containers, or has no usable delivery means available. I solicit your support for the production of binary weapons in the appropriate configuration. We need a modern, usable retaliatory capability if we are to deter the Soviet use of chemical weapons in Europe and if we are to negotiate from a position of strength in trying to achieve our ultimate goal: the elimination of chemical weapons from the face of the earth.

Terrorism continues to pose a serious threat to our forces. Much has been done to increase our capability to defend against this threat, but additional steps must be and are being taken. These include completing physical security upgrades to deter terrorist attacks, enhancing our antiterrorism training capability in Europe, and fully manning guard forces dedicated to the protection of our installations. We have placed a high priority on combatting terrorism and are working closely with our Allies to eliminate this menace, but continued Congressional support is needed.

Finally, modernization of U.S. Special Operations Forces is needed in order to support theater objectives through enhancement of sustainability and by the development of night, adverse weather, infiltration/exfiltration and resupply capabilities. Acquiring reliable, jointly interoperable, secure communications with a low probability of intercept would measurably enhance these joint operational capabilities.

Force structure

Now I wish to turn to the force structure element of operational capability. Increases in force structure are necessary if we are to support properly the current and programmed weapons systems. Additional national efforts to develop the pretrained individual manpower resources, particularly in combat skills, to bring units to wartime strength or to replace battlefield casualties in the early days of combat are essential to the conventional defense of NATO. Initial efforts indicate that the numbers of individual mobilization augmentees can be increased through carefully constructed programs. The means must be found to sustain these efforts and to meet mobilization and attrition requirements.

An area of special concern with respect to USEUCOM force structure is the current European Troop Strength (ETS) ceiling of 326,400 imposed by the Congress. The ETS ceiling is having an adverse impact across-the-board on U.S. conventional forces in Europe. EUCOM headquarters has devoted considerable time and effort to develop a management system. To date we have eliminated over 10,000 military authorizations in order to meet the ETS ceiling and still allow for essential modernization. We are faced with sending back to CONUS units which we need, or deferring the deployment to Europe of units which we also need, or both. To continue to meet the ETS ceiling, we must now trade off manpower spaces from required conventional capabilities for spaces for Ground Launched Cruise Missiles (GLCM) to permit their continued deployment. I do not believe that we can—or should—afford to continue to meet the ceiling in view of our having to cut combat muscle that is essential for deterrence and defense.

I ask that Congress rescind the European troop strength ceiling in Europe. I believe that we now have the management of all European spaces—to include those of the "stove-pipe" commands—under firm control. The case for enhancing conventional defense is compelling. A continued ETS ceiling on conventional defense improvements will impact adversely, exceeding any benefits to be derived from prodding our allies to do more. The need to continue GLCM deployment is just as compelling. I would hope that Congress and the administration could find ways to lead the allies without relying on ETS ceilings, the threat of withdrawal of U.S. forces, lack of support to the infrastructure program or other punitive measures.

CONCLUSION

In conclusion, there are some thoughts I wish to leave with you for your consideration as your deliberations on the fiscal year 1986 Defense Budget proceed.

First, NATO's strategy for the deterrence of war and the defense of our vital interests in Western Europe remains sound. However, there are deficiencies in the military capabilities required to support fully NATO's Flexible Response strategy. Remedies for deficiencies in the strategic and non-strategic nuclear legs of the triad of forces needed to support our strategy are underway. It only remains for us to follow through on those programs.

Second, further improvements in conventional capability are essential and achievable since a Flexible Response strategy for a defensive Alliance does not require that NATO match the Soviet/Warsaw Pact one for one in any area of force comparison. Improvements in the U.S. force contributions to NATO's defense should be guided by the priority tasks I outlined earlier.

Third, European Command needs your support in some key defense programs. They are:

People programs such as compensation, medical care, O&M and MILCON for training and for support facilities, housing, family care, and real property maintenance.

The full deployment of GLCM and PII.

M-Day essential force requirements including POMCUS equipment, storage facilities, support personnel requirements, and forward stationing of CSS units.

Mobility/reinforcement requirements with special attention to meeting our national commitment for 10 divisions, 88 tactical fighter squadrons and a Marine Amphibious Brigade in Europe after 10 days of mobilization.

Funding for WHNS to complement U.S. military capability to enhance U.S./NATO combat power as specified in HNS agreements.

Sustainment requirements with special attention to storage and stocks of critical munitions and major end items that can be "war stoppers".

Wartime capability for hospitalization and medical evacuation through procurement and prepositioning in theater of contingency and general hospitals, and associated medical treatment, equipment and supplies.

The surveillance/reconnaissance/target acquisition systems, the fusion/command and control systems and the weapons systems needed for the effective engagement of follow-on forces, with special attention to standardization/interoperability with Allied assets.

Modern, binary chemical retaliatory capability.

Combatting terrorism.

Special Operations Forces capabilities, especially enhanced infiltration/exfiltration and C3 systems.

Fourth, I wish to mention again that the Soviet/Warsaw Pact military growth machine rumbles on, unabated. What NATO must have is a collective force of all the Allies which has a perceived operational capability which will deter that Warsaw Pact strength from being used against NATO. But the cost of such a deterrent will be high; it always has been.

Since the end of the Revolutionary War, our dream in this country of a continuing peace and our wishful thinking that war will never come again have always caused this nation to weaken itself to the point that we have not deterred aggression nor been properly prepared to engage in combat when deterrence failed. We must not let this happen again. But it will unless we continue to improve the strength and readiness of our armed forces along with those of our allies. The recent trends in U.S. defense improvements have been significant. Over the last several years, Americans have sacrificed greatly to reduce the imbalance in comparative force capabilities. These efforts are having an impact. Today, the U.S. Armed Forces have the highest quality troops—by any standard you want to apply—in their history. They are well-equipped, ably led and well-trained. Their professionalism, intelligence, sense of duty and willingness to sacrifice in the service of our nation are an inspiration to persons fortunate enough to be their leaders. The operational capabilities of the U.S. forces stationed in Europe have improved considerably in recent years. But we cannot afford to reduce our efforts just when good things are beginning to happen. We must continue to devote sufficient resources to defense both to reap the full benefits of the force improvements we have sacrificed as a nation to make, and to retain the high ground we need to encourage our Allies to continue to do more in the collective defense of common values so that no nation will commit aggression against our Western Alliance.

Finally, I can understand and appreciate the need to reduce the budget deficit and the desire of some in the Congress to reduce the defense budget along with reductions in social and public programs. However, as I have suggested on a previous occasion to this committee, the highest moral imperative for a democratic government would seem to be to provide that most important of all social services, the one which keeps its citizens free, alive and at peace.

I would hope that that particular social service would be viewed as overarching all others as this nation deliberates its national budgets year after year.

Chairman GOLDWATER. Thank you very much, General. We will get back to you.

General Nutting, would you care to make a few comments?

STATEMENT OF GEN. WALLACE H. NUTTING, COMMANDER IN CHIEF, U.S. READINESS COMMAND AND DIRECTOR, JOINT DEPLOYMENT AGENCY

General NUTTING. Thank you, Mr. Chairman and Senator Nunn.

It is a privilege to provide my report on the status and prospects for the U.S. Readiness Command and Joint Deployment Agency this morning. I ask as you suggested, Mr. Chairman, that my statement be included in the record.

I must say also it is a privilege to appear with General Rogers.

A year ago in my statement I discussed the origins and the evolution of the U.S. Readiness Command, which seemed to me at that time to have been appropriate in light of the prior creation of the Rapid Deployment Joint Task Force and the evolution of that force into the U.S. Central Command.

I also discussed the structure, the missions and the organization of the command, accounted for the projects then under way, and provided a forecast of future efforts. I consider that statement a foundation for my remarks this morning which will address progress that I believe we have made in the last year, as well as discuss some of the issues we face.

Both the U.S. Readiness Command and Joint Deployment Agency, I believe, are critical to maintaining and improving the security of our strategic base which is the United States itself, the deployment of our strategic reserve and improvement of our joint warfighting capabilities.

The U.S. Readiness Command and Joint Deployment Agency do in many respects occupy a unique position in the unified command structure which gives us a high potential for strongly supporting our forward deployed strategy which relies heavily on the maintenance of a strong central reserve, and its rapid movement as crisis situations may dictate to the forward perimeter of our global interests around the world.

Readiness Command and the Joint Deployment Agency now have been colocated at MacDill Air Force Base for 6 years. In that period of time the Joint Deployment Agency has assisted in consolidating the joint deployment community's responsibility for the rapid projection of our central reserve, garrisoned in the United States. We are adopting an operational mode, having been largely in a developmental process up to recent times, and we are, in fact, close to reality in the development of a computer-based deployment planning and execution system which will change the way we do business in very significant ways.

The commands are presently involved in three major efforts. My priority effort has to do with continental security, should that become a matter of military concern. This effort arises out of our responsibilities for providing military support to civil defense and, under any circumstances that might arise in the future, to provide for the land defense of the continental United States. I will discuss that more in a moment.

A second major effort has to do with the joint readiness of our forces and improving, where possible, their interoperability.

The third effort has to do with deployment of the strategic reserve.

I did mention last year that I had concluded an analysis of the missions assigned these two joint organizations. We are organizing our efforts along functional lines in specific mission areas to assist in coordinating what are overlapping responsibilities between the Readiness Command and the Joint Deployment Agency. I will use those mission areas to describe the progress of our efforts in the last year.

FORCE READINESS

In dealing first with force readiness, I would observe that the services, the military departments, are responsible for organizing, training, and equipping forces and providing for their maintenance. Readiness Command, in reality, does constitute the strategic reserve of general purpose Army and tactical Air Forces which are assigned and garrisoned in the United States. We are principally concerned with ensuring their capability to augment or reinforce the other unified commands. These commanders in chief have discussed their situations with you earlier this week.

We are wrestling today with an improved definition of joint readiness. We understand well the aspects of Service/Department readiness. We are placing our emphasis on joint readiness and find that translates principally into joint training.

We are seeking ways to enhance joint training opportunities which will improve the interoperability of all the forces as they come together in our various plans. There is potential involvement over the spectrum of conflict and I think that potential highlights the continuing need for improving our interoperability and the compatibility of our equipment.

DOD RESTRUCTURING

I think the major restructuring of the Department of Defense's planning, programming and budgeting system and the increasing opportunities this year for the commanders in chief to surface their warfighting priorities give us a good opportunity to speak into the system with the overall goal of enhancing joint interoperability.

In the joint planning mission area, as I indicated, my top priority has to do with North American security. We have developed and revised an organizational structure and concept of operations for military emergency response during any crisis that might exceed the capability of local authorities.

I would observe that in the past 209 years the oceans have certainly served our security well. We really have never been tested in a physical sense, but I would point out that our vulnerabilities are changing as the threat evolves in the world today. As pointed out by a recent study issued by the Georgetown Center for Strategic and International Studies, our Nation, our society, is really quite vulnerable in terms of our communications networks, our transportation networks, and the energy distribution networks upon which those functions depend so heavily. We face a multifaceted threat to those basic social-economic capabilities which are also essential to the rapid deployment of our strategic reserve under any circumstances.

Our revised concept allows for detailed civil-military interface at all levels during a crisis and for the protection of these capabilities and networks. Our proposal builds upon existing and planned command structures and information systems and would rely heavily upon Reserve component personnel and organizations for the performance of required security missions.

Our concept is totally consistent with our Federal system and leaves the responsibility largely to local authorities where possible, and provides for decentralized crisis actions.

I don't indicate that there is substantial immediate threat, but I think we do have to acknowledge the sensitivity of our networks upon which we depend so heavily. The threat to the United States is pretty well-defined. The nuclear threat certainly is well-defined, and, I would say, well-deterred. I do not expect any conventional forces to constitute a major threat at this time to our security nor are any particularly capable.

I do think we have to recognize in this day and age, however, the vulnerability of our networks to terrorist-type actions or unconventional warfare forces, and acknowledge that the Soviet Union has promulgated a doctrine which places emphasis on the security of the strategic rear—the security of their rear—and upon attacking the vulnerabilities in our rear. We have seen the evolution of that doctrine in such theaters as the European Command in a tactical sense and in an operational or theater sense. It seems to me today we also have to acknowledge that Soviet doctrine could also contemplate operations in our strategic rear—that is the United States itself.

We have seen evolve, in recent years, a military and paramilitary capability which needs to be taken into account. That capability is visible in the form of infiltration teams of the KGB and in the special operating or SPETSNAZ forces controlled by the GRU. Again, I do not say there is great cause for alarm; but, on the other hand, recognizing the potential for terrorist action both against humanity and against physical structures, we need to ensure that our key facilities are properly protected under any circumstances. This mission in World War I took about 100,000 people, and in World War II about 300,000 people. There are some today who say we can't afford that kind of luxury. On the other hand, I would observe we cannot afford not to ensure protection of key facilities that support not only our society and economy, but war-making potential as well.

Our planning process is using modern technology and we have made good progress in development of a theater level simulation which I discussed with you last year. This system provides an analytical capability to the commanders in chief around the world to analyze courses of action for employment of forces and hopefully speed up the planning process. We have reached the point where the hardware and software for this analytical model have been tested and accepted and will be issued to the unified commands beginning this summer.

JOINT TRAINING MISSIONS

In our joint training mission area we are placing emphasis, as I indicated, on interoperability. I have established, within the resources of my headquarters, a Joint Training Office which has not existed before, with the purpose of analyzing operational requirements, formulating therefrom joint training requirements and skills, exercising in appropriate ways those skills, both individual and collective, and evaluating, where appropriate, the performance of those skills and training requirements within the strategic reserve. We also appropriately support the commands overseas in evaluation of the tactics, techniques and procedures involved in the interoperation of our forces.

We are responsible, as I recognized, for the joint readiness of the central reserve. Our goal is to take all steps possible to enhance their ability to operate effectively upon arrival in an overseas theater where, of course, they must be prepared under present circumstances to fight anywhere that conditions might dictate.

Our exercise program attempts to reflect this global perspective. We are transitioning from the kind of large joint exercises conducted in the past, which in some cases, repeated training that was conducted effectively by the military services. We are moving to what I call function-specific exercises which will specifically exercise the personnel and the equipment involved in the joint interface of various systems across service boundaries.

One area of concern in joint training involves the availability of air and ground maneuver space in the United States for the conduct of essential joint exercises. I would observe that since World War II we have lost about 50 percent of the available training spaces that are useful for the preparation of our forces. We certainly must acknowledge the need to protect the environment, endangered species, and historic sites, but we also must recognize there is a critical need to plan for, designate and preserve essential ground and air maneuver areas for the kind of joint exercises required to enhance the readiness of the strategic reserve.

Interoperability of our forces involves not only training, but the development and the continual refinement of essential joint tactics, techniques and procedures. We have a good program under way involving all the commands and indeed, we have a good program for evaluation of those tactics, techniques and procedures in the exercises conducted by the overseas commands.

In the joint operations mission area we are involved largely in developing command and control capabilities, principally in the form of a deployable joint task force headquarters. We have, over the past year, supported the U.S. Southern Command three times in the provision of a joint task force headquarters for the control and coordination of their exercise activity and we expect to commit that joint task force headquarters two more times during this year.

JOINT DEPLOYMENT

Joint deployment is the major joint operational activity that we are involved in. You recognize that the Joint Deployment System and its development was accelerated in 1982 by Deputy Secretary of Defense Carlucci. We are providing coordination authority and acting as executive agent for the Joint Chiefs of Staff in the monitoring of deployments for exercises, and ultimately for all deployment purposes.

In September of this year we will field a version of the Joint Deployment System which encompasses all but two of the originally mandated requirements of this computer-based system. After the initial fielding in September there will be the need to continually refine its capability, but we are on the verge, I believe, of a new dimension in terms of capability to deploy our strategic reserve.

Certainly strategic mobility is the cornerstone of our military strategy. We have a real, improving capability in planning and executing those deployments which, when coupled with the improvements being made in strategic airlift and strategic sealift really do, I believe, bring us into that new dimension.

The congressionally mandated mobility study of 1981 and the succeeding efforts have been helpful. I would acknowledge that the current airlift program will result in a 70-percent increase in capability between 1983 and 1988. There still is a significant shortfall, however, that will exist at the end of the program period. The improvements that are being made are significant and I would strongly support the C-17 program which, in my view, offers the best long-term plan to the kind of modernized strategic airlift capability required to implement effectively our military strategy.

SEALIFT

Sealift, obviously, is critical. It historically carries 95 percent of the deployment load. I strongly support the Navy's ongoing efforts and initiatives.

The DOD sealift study of 1984, however, does reveal the continuing decline of the U.S. Merchant Marine. The situation today places us in the position of buying militarily useful, retired ships which are improving our sealift capability. It seems to me that not only must we look at ways to increase the size of the ready reserve force up to at least 100 dry cargo ships by 1990, but there is a long-term need for us to design, from the keel up, the kind of fast deployment logistics shipping that our military strategy requires.

In that regard I have urged the development of a master sealift plan that will maximize present resources and provide a sensible direction to improved capability in the future, as does the existing Air Force master airlift plan.

Finally, I would just refer for a moment to the forms of conflict that we have faced in the world in the last 35 years and those which seem most likely to confront us today. I think we recognize that some form of terrorism, guerrilla warfare and unconventional warfare is most likely and indeed is the kind of conflict that we now face in Central America. These types of conflict seem to be the dominant feature of the international environment.

In my opinion, this is the essential strategic issue facing this Nation over the long haul. The roots of the Central American conflict and those like it around the world are found in serious social, economic, and political inadequacies. Those conditions, and the human dissatisfaction resulting therefrom, certainly have given the Soviets an opportunity to capitalize on human misery and destabilize those societies and regions of the world. Low intensity conflict, so-called, is a multidimensional threat and requires a multidimensional and coordinated response.

In summary, I would observe that the United States Readiness Command and Joint Deployment Agency together are making good progress and have had, in my view, a productive year. We have to recognize that the expansion of Soviet fighting capabilities and their willingness to export those capabilities through surrogates are a fact of life and I need not elaborate on them here.

Given this situation, we do need to look carefully to the various elements of our national military strategy of forward defense. It is a strategy that makes good sense. Its implementation requires a command with the capability of planning, coordinating and executing rapid deployment of our strategic reserve while ensuring adequate, continuing security of the continental base. The United States Readiness Command is fulfilling these fundamental responsibilities.

I, too, recognize that the quality of the force today is perhaps the highest it has ever been. It is ready to implement our military strategy, but it does have some weaknesses. It has been successful in its deterrent efforts and we presume that it is capable of rising to the kind of challenges that one would expect in the world today.

Thank you very much, Mr. Chairman.

[The prepared statement of General Nutting follows:]

PREPARED STATEMENT BY GEN. WALLACE H. NUTTING, COMMANDER IN CHIEF, U.S. READINESS COMMAND AND DIRECTOR, JOINT DEPLOYMENT AGENCY

Mr. Chairman, members of the committee. I welcome this opportunity to report to you on the status and prospects of the United States Readiness Command (USREDCOM) and the Joint Deployment Agency (JDA).

A year ago, I came before this committee to discuss the posture of my command. The report I submitted detailed the origins and evolution of the command, the structure of the command's missions and organization, an accounting of the major projects underway within the command, and a forecast of projects for the coming year. I regard that report as the foundation for the present statement. Accordingly, I propose to address here the progress made since the last report, as well as the major issues, concerns, and tasks confronting the United States Readiness Command and the Joint Deployment Agency today.

In my second year as the Commander in Chief of USREDCOM and Director JDA, I am more than ever convinced that both organizations are critical to the maintenance and improvement of our joint warfighting capabilities, the deployment of our strategic reserve, and the security of the United States. USREDCOM is unique among the unified and specified commands. Our national military strategy requires, *inter alia,* the forward deployment of forces along the global perimeter of our national security interests. Our strategy also requires a strong central reserve and rapid, efficient means of strategic mobility. USREDCOM is charged with seeing to the readiness of the conventional, general purpose ground and tactical air forces located within the United States and comprising that strategic reserve; forces that would in time of conflict be deployed by USREDCOM and the JDA in reinforcement of the overseas combatant commands, and sustained as they execute their operational missions. USREDCOM's uniqueness derives, therefore, from its central position among the unified commands and its mission to support those commands when required. To this extent, it is the centerpiece of the unified command structure. If we did not have a USREDCOM, we would have to invent one.

The Joint Deployment Agency, now some six years in operation, has during the course of its history addressed the problems of rapid, unified deployment first identified by Exercise Nifty Nugget in 1978. Quite apart from its role in inspiring, sponsoring and consolidating the formation of a true "joint deployment community" composed of all those commands and agencies that have a role to play in military deployments, the JDA is very close now to making the automated Joint Deployment System a reality. I shall discuss these developments in more detail later in this statement.

At present the command is concerned with three major efforts. The first of these evolves from our mission to provide for military support of civil defense and the land defense of the continental United States in time of war, and in conjunction with Canadian Armed Forces, to provide for the land defense of North America. As I hope to make clear, the time has come to address this particular mission with a good deal more resolution than has been done in years past. The second major effort has to do with joint readiness and improvement of our capability to conduct joint operations. As this committee knows, the Service departments have paramount responsibility for organizing, training, and equipping their forces to a state of combat readiness consistent with the demands of national security. USREDCOM's concerns focus upon joint readiness, or the ability by virtue of doctrine, training, and equipment of all our forces to operate in synchrony with one another. Lastly, USREDCOM and JDA are especially interested in improving our joint deployment capabilities. I have already mentioned the development of the Joint Deployment System under the aegis of the JDA. Our interests extend to the general subject of strategic mobility, including the identification and support of improvements in strategic airlift and sealift capabilities which together constitute the *sine qua non* of national power projection.

The committee will recall that in last year's statement I reported that the command had engaged in a close, critical analysis of its missions, organization, and resources in order to ensure the optimal performance of our many duties. For more than a year, we have organized our efforts along the functional lines, or "mission areas," of force readiness monitoring, joint planning, joint training, joint operations, and joint deployment.

FORCE READINESS

As you know, the services are mandated the responsibility for organizing, training, equipping and maintaining the combat-ready forces for rapid deployment and employment; however, as the majority of CONUS based Army and tactical Air Force general purpose forces are assigned to this command (USREDCOM), we are principally concerned to ensure their capability to augment or reinforce the other unified commands.

Regarding readiness and military capability, we are wrestling with a definition of "joint readiness" in an attempt to focus on the joint aspects of force readiness. In the area that seems most promising initially, we are actively developing and refining policies for interoperability training consistent with current and foreseeable operational needs. To this end, our intent is to develop an overall concept of joint readiness with more acute identification of the joint combat functions.

The potential for U.S. military involvement across the spectrum of conflict highlights the need for improved interoperability of service tactical communications.

The lack of equipment is sometimes not so much the problem as the electronic compatibility of equipment between services at the echelons deployed in such conflicts. In the low intensity environment, and in the geographic areas where such operations would be conducted, a U.S. communications infrastructure or indigenous commercial communications is limited to nonexistent. Organic, tactical communications of the services must be deployed to accomplish essential command and control. The lack of satellite channel capacity to adequately support tactical forces in diverse and undeveloped areas of the world is a serious deficiency in tactical communications. USREDCOM has been active in identifying the issues of compatibility and in developing procedures which could potentially minimize such interoperability difficulties.

As you know, in an effort to integrate the needs and concerns of the joint operational commanders into the resource allocation process within the Department of Defense, a major restructuring of the DOD Planning, Programming and Budgeting System (PPBS) is evolving. Heretofore, Commanders in Chief of unified commands had little or no voice in DOD resource decisions until the essential structure of the DOD program had already been established by service action. Changes fundamental to the flow of the resource programming process now give me an opportunity to become involved in the Army and Air Force resource decision process from the outset.

My warfighting concerns become an integral consideration, along with those of other CINCs, as each Service formulates its program. I view this evolutionary change as necessary and healthy. We have needed a mechanism by which the concerns and perspectives of the joint commanders can become part of our resource and force structure decisions. We are presently midway through the first cycle involving these changes and I anticipate further adjustments as the process evolves. Be that as it may, this increased emphasis on CINC involvement in resource decisions should help focus the PPBS on force readiness issues from an operational viewpoint.

JOINT PLANNING

As we turn our attention to the joint planning area, our top priority at Readiness Command is the enhancement of current concepts and plans for the security of North America, should we ever face a conflict or disaster situation beyond the capability of local authorities. Our major effort has been the development of a revised organizational structure and concept of operations for military emergency response during a crisis period. For the past 209 years, the oceans have well served our security needs. Our military has only infrequently needed to become involved; we have succeeded in part because of an overall limited threat. We have never really been tested. Today we face—as was pointed out in a recent study by the Georgetown Center for Strategic and International Studies, among others—a multifaceted threat ranging from natural disaster, civil disturbance, terrorist incidents, sabotage, limited enemy operations within continental United States, and to the ultimate threat—

nuclear war. We must be prepared to face any and all of these possible events if we are to accomplish our primary mission of deterring unwanted conflict, or projecting our forces overseas and winning should deterrence fail.

Our revised concept allows for a detailed civil-military interface at all levels during a crisis period and for the protection of the key facilities so necessary, not only for economic survival, but for the overall support of a mobilization effort. I recently read an article in Jane's indicating the British are increasing their homeland security forces by 5,000 personnel by 1990. As indicated, they already have a dedicated force and a plan, as do most of the nations of the world. We today do not have a single soldier, airman, or sailor solely dedicated to the security mission within the United States.

I question the advisability of this practice. Our joint proposal builds to the extent possible on existing and planned command structures and information systems, uses the least resources consistent with the threat—with plans to increase capabilities as future conditions dictate, and would rely heavily on Service reserve components, state militia and auxiliary type organizations. This approach is totally consistent with our federal system, leaves most responsibility in the hands of local authorities, and provides for decentralized crisis action. As the Services request the required personnel and hardware, I ask your support in manning and equipping a small dedicated force and joint command structure capable of providing the framework for accomplishment of these missions during a crisis.

The Soviet strategic nuclear threat to CONUS is real and well defined. Soviet conventional forces now lack sufficient capabilities to undertake major operations against North America. Available airlift and sealift assets would probably be committed to other theaters of operation in war time, but the lower level threat is real and must be addressed in our planning and force structure.

The current assessment of the land threat to CONUS is that posed by the Soviet Union's unconventional warfare forces. Soviet doctrine calls for forces to operate far behind enemy lines for extended periods of time and to be capable of operating throughout an enemy's homeland. These forces are composed of KGB infiltration teams, possibly in-place agents and the special purpose forces of the GRU, known as SPETSNAZ. Soviet unconventional warfare forces are tasked to perform acts of sabotage and assassination deep in the enemy's base. Additionally, land infiltration could become a future concern along the porous U.S.-Mexican border, depending somewhat on the outcome of the current war in Central America. These infiltration teams and in-place agents could be targeted against key command and control centers, nuclear capable assets, critical lines of communication and other targets critical to their war effort. Their overall goal would be to degrade or destroy the US war-waging capability.

USREDCOM has been given a new mission by the Joint Chiefs of Staff (JCS)—to revitalize the listing of the key industrial facilities and key means of mobilization, prioritize that list, and be prepared to provide protection to those facilities, if required. During World War I, 100,000 men, and during World War II, 300,000 men, were used to protect vital facilities. We usually think we cannot afford that luxury today. I suggest we can no longer afford not to. Since 1941, five different federal agencies have had this responsibility. None of them were able to field a totally successful program. On 30 November 1984, we submitted an 11-step program to the JCS that will provide this nation with the most comprehensive list of all critical assets that are essential to our warfighting capability.

As I reported last year, our efforts focus on development of systems to improve our joint warfighting capability by enhancing our military crisis action and deliberate planning processes using modern technology. These systems will not only compress the time associated with the current analytical mechanisms in the crisis action process but also will permit detailed refinement and evaluation of major war plans using the deliberate planning process. Our efforts in this regard focus on two systems: the Joint Theater Level Simulation (JTLS) and the Joint Deployment System. JTLS is a computer-based wargaming system which allows our staff officers to dynamically exercise military employment courses of action. As a theater-level analytical tool, it is designed for use in the development and evaluation of contingency plans and joint tactics, techniques, and procedures. JTLS simulates the interaction of intelligence, air, logistics, naval, and ground activities.

This provides the opportunity for insight into the relative merits of alternative courses of action, force structures and procedures during joint force combat operations. The JTLS system was delivered and installed last year as planned. It has been nominated to be the employment model for a future joint operations planning and execution system and, per direction of the JCS Joint Analysis Directorate, the system software will be installed at all unified commands by the end of CY86. An updated version of JTLS, including graphics and automated analysis tools, will be completed before those installations.

JOINT TRAINING

From our perspective, considerable effort has been dedicated to development of warfare systems and related doctrine, but insufficient effort toward related joint training requirements. To provide the needed direction, I established a Joint Training Office last August. This office is tasked with refining and developing policies and guidance for interoperability training consistent with our current and foreseeable operational needs. Analysis of the joint training situation is well under way. I recently hosted a joint training conference at the General/Flag Officer level to attack fundamental, persistent problems and to develop a broader consensus for future actions in joint training. The participants included representatives from OJCS, the other unified and specified commands, and the services. The attendance by these senior officers is testimony to the willingness of the services and joint commands to work together to improve joint training.

The conference was a very productive effort and one positive outcome was the general agreement for a USREDCOM initiative implementing a program to expand participation by our components and others in guiding future efforts in joint training. This program is referred to as the Joint Training Enhancement Committee (JTEC) consisting of a General/Flag Officer Steering Committee and a broader-based Working Group. The JTEC will have representation from JCS, the services, the transportation agencies, and other selected activities that have key roles in the joint training community.

These collective efforts lay the groundwork for: improving joint training guidance to our component forces; providing suggested joint training matter to the service school systems; and coordinating our joint training efforts with the other unified and specified commands. We are well underway in developing a full-fledged, comprehensive joint training program that takes into account our responsibilities as assigned by JCS for joint training in the Joint Interoperability Tactical Command and Control Systems (JINTACCS) and Joint Tactical Air Operations (JTAO) and ensuring that the strategic reserve is combat-ready.

What drives our involvement in joint training is the need for a fully trained central reserve, prepared to fight jointly in any theater, and, therefore, the need for greater standardization to ensure the interoperability of our forces. USREDCOM is unique among the unified commands because of its worldwide focus. We cannot concentrate on preparing our forces for any one theater. We must consider all other CINCs' joint training requirements, which include the tactics, techniques, and procedures necessary to fight effectively with Allied forces. Our deployment missions and perspective on sustainment of our forces are also unique and involve worldwide commitment.

USREDCOM's exercise program has evolved from multifunctional field training exercises to function-specific joint readiness exercises with a focus on joint interoperability issues. These exercises provide the opportunity for each service to participate in the examination of joint issues and contribute to the development, evaluation, and standardization of those functions. Thus, the expenditure of joint dollars on joint issues allows us to emphasize those aspects of training which focus on warfighting capabilities, interoperability, and to exercise existing operation plans.

Agreements with the other unified commands enable USREDCOM to use exercises which they sponsor to conduct field evaluations of selected joint tactics, techniques and procedures in the theater for which they are designed. This collected data from several theaters provides a view of the impact of present and emerging concepts and procedures on the battlefield, and allows us to develop and structure future training to ensure that Army and Air Force forces are employed to maximum effectiveness. Additionally, we can evaluate our deployment procedures and our capability to support the forces in an overseas theater.

An area of specific concern is the continual shrinkage of air and ground maneuver space. We have lost 50% of our available continental United States training airspace since World War II. Legislative requirements to protect the environment, endangered species, and specified historical and archaeological sites have reduced the size of available maneuver areas. I acknowledge our need to protect the environment. But, there is also a critical need to plan, designate, and preserve maneuver areas capable of supporting large-scale joint exercises in the continental United States and to institute DOD policy to specifically identify and preserve adequate maneuver space for joint training. Without such action, and given current trends, it is probable that areas in the continental United States capable of supporting these exercises will, over a period of time, cease to exist.

The interoperability of forces is critical. Interoperability does not happen automatically from procurement of compatible equipment. Ultimately it can only be achieved through an effective joint training program.

For the forces to train together, they must have standardized procedures—standardized joint doctrine. With USREDCOM's worldwide commitments, it is a central agency for standardization. In this role, we host quarterly meetings for the Joint Tactics, Techniques and Procedures Review Group with broad representation to foster standardization. Our joint exercises focus on standardizing joint procedures. We send evaluation teams to support the joint exercises of other commands and, thereby, to improve standardization. All of these actions support achieving our goal of maintaining a trained and ready central reserve.

JOINT OPERATIONS

One of the recurring needs of our joint exercises and operations is a readily available and deployable joint command and control capability. The Joint Chiefs of Staff have tasked USREDCOM to form joint task force headquarters for such a purpose. In practicality, the joint task force headquarters are sometimes hastily formed ad hoc organizations without real coherence. We have proposed the formation of a permanent nucleus of personnel to fill this void to respond to the needs of the JCS. It would become a key element in the development of joint tactical operating procedures and in the integration of new joint tactical command and control equipment and methods.

In the absence of a standing joint task force headquarters, USREDCOM has provided ad hoc headquarters to support USSOUTHCOM for three exercises in Honduras and Panama in the past year, and is committed for two more this year. These commitments represent a major claim on our resources and those of our components.

JOINT DEPLOYMENT

The Joint Deployment System (JDS) to which I referred earlier has been under development for almost six years, the last two of which have been accelerated by direction of the Deputy Secretary of Defense. This system provides an automated data processing capability to coordinate and monitor actual deployments of U.S. forces and materiel in instances where contingency plans may or may not already exist. In September of this year, a version of the system will be fielded which will encompass all originally mandated JCS requirements save the processing of non-unit related cargo and evacuation of noncombatants.

Our challenge will become even greater with the fielding of the JDS in September. The post-September version of the system (consisting not only of hardware and software, but more importantly, of people and procedures) will be sufficiently well-established so that rapid improvement and refinements can be anticipated as the system is tested and used. The continuing challenge will be to improve JDS utilization, analyze its weaknesses, and add to its capabilities. Several significant enhancements and modifications are envisioned, including the course of action feasibility estimates and identification and monitoring of critical items (war stoppers) and other non-unit related cargo. Other system improvements, as yet undefined, are expected from increased system use. The JDS in September will be an excellent tool for enhancing our deployment capabilities. Over the next ten years, it will be our objective to improve and fully exploit this tool as part of this nation's effort to strengthen our conventional deterrent to war.

Strategic mobility is a subject in which the United States Readiness Command has a deep and vested interest. In fact, the whole nation has a direct and vested interest. Strategic mobility—the capability to project and sustain decisive military power—is the cornerstone of our military posture in support of our national strategy. No matter how combat-ready our forces are, they represent a paper tiger without the ability to rapidly deploy to various crisis zones worldwide when and where our vital national interest is threatened.

The advent of the Joint Deployment System, combined with improvements in airlift and sealift, is taking us into a new deployment dimension and provides, to a far greater extent than ever before, a real capability to execute our military strategy. As the major provider of forces, I am thoroughly convinced that adequate airlift and sealift to bring American power to bear on distant, strategic theaters serve to deter Soviet adventurism as well as intra-regional strife, while inadequate strategic mobility threatens and undermines our conventional deterrent posture. I am glad to say that the Congressionally Mandated Mobility Study of 1981 and DOD Sealift Study of 1984, as well as the overall efforts of DOD and Congress in the last two years, have provided the needed focus and positive action to improve our capability.

The Congressionally Mandated Mobility Study of 1981 documented a significant shortage of airlift. In order to rectify this deficiency, the Air Force has developed the Airlift Master Plan and embarked upon a program to acquire 66 million ton-miles per day lift capability by the mid-1990's. The current program will result in a 70 percent increase in capability between 1983 and 1988. However, a significant shortfall will still exist in FY90.

Thus, we still need to resolve and address this shortfall in combination with our intratheater airlift requirements and our overall procurement strategy for the needed replacement of C-141's and C-130's by the year 2000. The C-17 program offers us the best long-term plan to rectify airlift deficiencies and critically needed force modernization.

Sealift is critical to our deterrent and force projection capability. In a large deployment such as NATO reinforcement, it will deliver the majority of the equipment, ammunition and supplies. Empirical data confirm that approximately 95 percent of our cargo moves by sea. I strongly support the Navy's ongoing efforts to increase their fast sealift capability. The full activation of eight fast logistics ships (through conversion of the SL-7's to TAKR) in 1986, combined with the increases in the Maritime Prepositioning Ships and the Ready Reserve Force, gives us a greater surge capability to put ships on port in a timely manner and enables us to move toward our objective.

The United States is a maritime nation. We in Defense have historically relied on a strong merchant marine industry to meet our strategic sealift requirements. The DOD Sealift Study of 1984 reveals that the U.S. merchant marine industry has reached a state where further decline will make it inadequate to meet our defense needs in future crises. As I indicated last year, we in Defense have no alternative now but to purchase the best of the militarily-useful retired ships and place them in the Ready Reserve Force as we cannot rely on foreign carriers during war time. We have recently purchased 11 ships (5 roll-on/roll-off, 1 LASH, 5 breakbulk) as part of our overall effort to increase the ready reserve force to 61 dry cargo ships. This significantly improves our deployment capability as the 11 ships will lift one full armored division—as will 7 TAKRs.

Since the completion of the DOD Sealift Study the Maritime Administration has accomplished a new estimate that projects a significantly greater decline in US flag merchant ships by 1990. Current program action within DOD as a result of the recent Maritime Administration projections indicates a need for continuing growth in the Ready Reserve Force from the 61 dry cargo ships to approximately 100 dry cargo ships by 1990. This is essential to maintain our military capability in the short run. However, in the long run we must consider the alternative need to design and build new special purpose ships fully capable of moving unit equipment in the most efficient manner to meet our wartime requirements. In reality we need a research and development effort to develop a fast sealift follow-on to the TAKR.

Since 1950, U.S. flag carriers have dropped from 43 percent of the U.S. waterborne trade to 5 percent, and current projection indicates they will drop to 1 percent by 1990. From an economic and strategic deployment standpoint, this is lamentable and a dangerous development. As a maritime nation, I believe we cannot afford to let this happen. We must come to some resolution about what maritime capability we actually require as a nation to serve our economic and security needs. First, we need a national maritime policy which rejuvenates the merchant marine industry to serve our industrial, economic and military needs. Second, we need a military sealift master plan which will guide development of our capability through the first quarter of the next century.

FORMS OF CONFLICT

There is increased acceptance of the idea that conflict at the low intensity end of the spectrum, such as we currently face in Central America, is a dominant feature of the international environment and that it poses major challenges for this nation's political, economic, and military forces and strategy. These conflicts have in most cases serious social, economic, and political problems at their roots and they must be ameliorated. But they also provide the Soviets an opportunity to take advantage of human misery and further destabilize societies and regions. The increased frequency of so-called low intensity conflict in much of the Third World should also be viewed as a form of Soviet expansion in terms of force capability, base access and strategic power projection capability. Increasingly, our freedom of action is being curtailed.

This is a multi-dimensional threat that requires a multidimensional and coordinated action on our part. Unfortunately, as a nation, we seem not to well understand this form of conflict, nor are we well organized to cope with it. Policies, resources, and force structure are not sufficiently aligned with the requirements of a prudent national defense. In my opinion, this is the central strategic issue facing the United States today.

In order to enhance our understanding of low intensity conflict and the essential interaction between the elements of national power required to preserve our freedom of action, we at USREDCOM recently proposed that the Army take the lead in conducting a thorough, searching and critical field analysis of our efforts in Central America. The Army staff is currently developing the scope and terms of reference for this much needed effort. I expect the study to contribute materially to the enunciation of new doctrine for this most prevalent form of conflict, which in turn could provide a starting point for a joint, combined and multi-agency approach to better understanding and coping with this form of conflict. In such a manner, policy, resources and force structure could be more efficiently aligned with national defense requirements.

SUMMARY

In conclusion, USREDCOM and JDA continue to be a productive command and agency. We are making heartening progress toward fulfilling our joint mission areas and functions and accept the challenges that face us. Expansion of the Soviets' warfighting capability and their willingness to export that capability through surrogates, even to the borders of our very homeland, are well documented and need no further elaboration. Given these facts, and our strategy of forward defense—deploying only a portion of the forces needed to support our commitments and to protect our vital interests worldwide, with the bulk of our general purpose reserve held here in the United States—it is essential that there be a command capable of planning, coordinating, and executing the rapid, prioritized deployment of our forces throughout the world to meet contingency needs. This mission, coupled with the requirement for a single headquarters to ensure the security of the continental United States and the need for a focal point for the development of joint tactics, techniques and procedures to ensure the interoperability of our forces in joint operations make Readiness Command indeed the "centerpiece" of the unified command structure. I thank you for your attention and am now ready for your questions.

Chairman GOLDWATER. Thank you very much, General Nutting.

I just want to, reluctantly, observe that you are going to be retiring on June 30 of this year.

General NUTTING. That is correct.

Chairman GOLDWATER. You are too young. You should hang around a while.

General Rogers, just a couple of questions and I will turn it over to my colleagues.

STRATEGIC DEFENSE INITIATIVE

The Strategic Defense Initiative has received increased attention recently in Europe.

Can you tell us, in your opinion, what do our European allies feel are the strengths and weaknesses of SDI for Europe?

General ROGERS. At the outset, Mr. Chairman, let me say that I believe there is still considerable confusion in Western Europe as to what SDI means. It seems, sitting over there, there are many voices that are trying to describe it here in the United States and there is no single spokesman who has made it very clear to our allies what it is.

Therefore, you get varying reactions throughout the theater. But those who understand what it is, what is meant by it, are shifting now from the initial reaction of being opposed to it to agreeing that we should continue the research effort so long as they as allies will be consulted before any deployment will be made and so long as it will not be deployed counter to the ABM Treaty.

With respect to their concern about it, they see the possibility of the United States being successful in developing this defensive system and the Soviet Union continuing to build on the efforts that they have already had in this area and devising one for themselves and that they in the middle in Western Europe would find the United States uncoupling its defense from Western Europe. That is one thing they fear particularly.

Second, there are two nations that have their own independent nuclear force, France and the United Kingdom, and neither one would be happy to see this offensive type, retaliatory type force that they have become obsolete as a consequence of the Soviets having constructed a defensive system that might be fairly successful.

The advantages that some are starting to see, although there is even a question in their mind, primarily focuses on can we use it here in Western Europe?

They have been advised by such persons as the President's Scientific Advisor, by Dr. Teller and others, that it can be used—if research provides the capability—against missile systems such as the SS-20, SS-21, SS-22, and SS-23.

On the other hand, you have others who tell them no way, it is impossible for that to happen. When you have Jay Keyworth and Dr. Teller indicating to them that it can—and this has been done recently—they are starting to again say, even the doubting Thomases, let us let that research go on and perhaps there is something in it for us here in Western Europe. Further, I believe they would like to become involved in it to take advantage of the research as it might impact in areas other than just the SDI.

Chairman **Goldwater**. I hope you will keep us informed very intimately on SDI because Senator Warner is going to start hearings on that subject very quickly. I believe we have two parts of SDI.

The first part is more important than the second part, namely defensive. The first part which develops our ability to look down and tell the enemy what he is up to, is the real guts of it.

To that extent if we can do it and he can learn to do it, it may be an instrument whereby if both potential enemies know what the other one has in mind, we can prevent war. If you know what that guy is going to do, the chances are he won't do it.

Will you keep us closely informed on that?

General **Rogers**. I will, sir.

Chairman **Goldwater**. One more question. This has been a matter I have been interested in for many, many years.

You know and I know that we have some actual photographs, not just of a little part, of the potential enemy or enemies in place in the world. I have long been trying to get the President to release these photographs for the American public to see so that when we talk about their building a number of submarines, we don't have to just be talking to ourselves, but the American public can, through publications, understand when we talk about their building more nuclear carriers, we can show them what launch sites look like.

I know you have been interested in this. The extent of your interest I am not too well aware of, but I am going to continue to try to get the Reagan administration, through the intelligence family to let the American people see.

The only answer I have ever gotten as to why we will not do it is that we don't want the Russians to know how good we are. Well, that answer was first given to me 20 years ago. If they don't know by now, they are not quite as smart as I think they are.

In your opinion, what would be the effect on NATO, especially European public opinion, of the release of such photos and are you still interested in it?

THREAT TO FREEDOM

General ROGERS. Yes, I am still interested, Mr. Chairman. I have been interested in this one ever since I became convinced that the major—I should put it differently—the basic challenge that faces NATO today is convincing its people that there is a threat to their freedom down the road, if not a threat to their peace. They can have their peace, but lose their freedom. That is what I alluded to initially.

The objective of the Soviets is to build their military might to the extent that the defensive alliance is no longer restorable and we find the shadow of that military might and pressure being placed upon us in Western Europe in times of tension and a very distinct possibility of concessions being made by political leaders.

The basic problem is convincing our publics in the alliance that there is a threat to their freedom and to get them to be willing to make some sacrifices now for security purposes, not great sacrifices for the individual, but sacrifices for security purposes so that they will be willing to tell their duly elected representatives in their parliaments and Bundestags and Congresses as the people told this Congress in 1980, we want to increase our security arrangement.

That lasted for 2 years in the United States and was a magnificent example to use in Western Europe. But we must convince the people that there is this threat.

I have found the following: When you have minority and coalition governments, as we have many in Western Europe, there are very few leaders of government who will take the initiative to try to convince their people that more should be spent on defense because it means that cuts have to be made in social and public programs.

That is not true of all because you have some governments that are not coalition or minority. But for those of us who try to raise our voice, two things happen.

One, we are accused of going around the governments to the people. But it is our responsibility to defend Western Europe, therefore, I think it is our responsibility to inform them.

The second is that we are not having much impact. Those of us who wear the uniform, you know, since the days of Julius Caesar, have had the finger pointed at us and told: all you want is more men, money and materiel. I happen to fall in that category in my position in Western Europe at the present time.

The short answer to your question, Mr. Chairman, is if we are going to convince them, we are going to have to get some flexibility in the intelligence community today. I have said, ad nauseam, the time has passed, in my opinion, when for the common good of the collective defense we must have some give in the intelligence community.

I, like you, have carried this to the highest authority. My responses that I get along the way have been, "Thank you for your interest in international defense," and then a very technical description why the pictures should not be released.

I am sympathetic with the intelligence community. I don't want to divulge sources or dry up sources, but if we are going to convince the Western European people to do more, we can't do it by threatening to withdraw our troops. We do it because our troops belong there. We do it by convincing them that there is a threat to their freedom.

Hang in there, Mr. Chairman, because I am going to keep pushing this matter. If I could write my own ticket, there would be a periodic display to the publics in Western Europe of the growing threat we see from year to year, to show them the offensive character of the Soviet Union and the Warsaw Pact, the pre-stocking of river-crossing materials—massive amounts—pre-stocking of POL materials—pipelines to be laid 60 to 90 kilometers a day—not to be laid to the east, but heading west. That is what we need.

The short answer, yes, I am interested and I am going to keep trying.

Chairman GOLDWATER. Thank you, General.

I assure you that I am going to continue. I don't think it will be all that hard. You know we have some hard-nosed people in intelligence. We also have a pretty hard-nosed President. If we can convince him, I think we can get it done.

Senator Thurmond.

Senator THURMOND. Thank you, Mr. Chairman.

General Rogers and General Nutting, it is a pleasure to have you appear before the committee today in the third of our hearings with the Unified Commanders.

Mr. Chairman, these hearings have been very instructive and have provided a much needed insight into the needs of our warfighting commanders.

Mr. Chairman, you are to be commended for holding this series of hearings as a part of our review of the defense budget. I do wish that more of our colleagues could have attended these meetings. If they had done so, we would have much less difficulty getting approval for production of binary chemical weapons.

The military necessity for renewed production of chemical weapons has been made quite clear. I sincerely hope that we can convince the Congress to take action this year.

LACK OF CHEMICAL RETALIATORY CAPABILITY

General Rogers, we have received testimony that our lack of a credible chemical retaliatory capability lowers the nuclear threshold and diminishes the timeframe in which battlefield nuclear weapons would be effective. This in turn could necessitate the need for use of theater nuclear weapons.

Would you comment on this assessment?

General **Rogers**. I think when one looks at the two massive destruction weapons which exist, the question has to arise if chemical weapons are used against us and we do not have an adequate retaliatory capability.

Mr. Chairman, with your indulgence, would you let me pick up, sir, on the last comment about the intelligence because I do want you to know, except in this one area, I am getting magnificent support from the intelligence community as a SACEUR, greater than I have ever had from CIA, from DIA, from NSA.

Even an organization has been formed within this Government which is designed to find ways that the intelligence communities can support SACEUR more than they have been. So, I don't want you to leave with the impression that I am not getting that kind of support.

It is only in this one area—the release of overhead photography—where it has been found impossible to release them.

Chairman **Goldwater**. I understand that. I am sorry if I left the impression that you weren't getting along with them.

I have lived with intelligence a long, long part of my life. I think we are coming up with the best intelligence outfit in the world. They are not the problem. The problem is a bunch of people sitting someplace else that really don't know a lot about it.

General **Rogers**. I am sorry, Senator Thurmond, but I would agree with that analysis that under current conditions what would face the political authorities today would be, will we respond to the use of chemical weapons with nuclear weapons rather than responding with the kinds of chemical weapons we have about which we are not sure because there has been no test firing since 1969. Both the chemicals in the warhead and the projectiles that propel them to the target are running into a wall of obsolescence.

RESUME PRODUCTION OF CHEMICAL WEAPONS

Senator **Thurmond**. General Rogers, should the United States resume production of chemical weapons?

Do you see any possible change in our allies' position on deploying chemical weapons to Europe?

General **Rogers**. Senator, we have chemical weapons deployed in Europe today. Germany, which is the country most concerned, has accepted them on its soil. They know what they are, what numbers, and so on.

In the German white paper of 1983 the Germans supported the need to have an ability to retaliate in kind to a limited extent.

So, we have the systems and allies accept the fact that the SACEUR has been given a mission by his political authorities to retaliate in kind should chemical weapons be used against them.

Let me hasten to add, however, I don't think we need to face that problem. I have personally always been convinced that we would send the appropriate signal to the Soviets just by starting to produce three types.

One, the Bigeye bomb that can reach to the rear with persistent chemical; two, a shorter range with a nonpersistent chemical, and three, an intermediate range weapon which would come from research and development in the MLRS, multiple launch rocket system.

Just producing those types I think would do two things:

One, it would show the Soviets we were serious with modern binary rounds and prepared to retaliate.

Two, we could have greater strength at the negotiating table to achieve our ultimate objective, as I described in my remarks, and not put ourselves in a position of trying to force them upon the allies before the time of tension comes when we then could consult with them and determine whether or not we can deploy them.

I think that is what needs to be done, Senator.

Senator THURMOND. In other words, go forward with production you feel is very important?

General ROGERS. To me it is absolutely essential. If we are serious about deterrence being our mission, we want to deter conventionally. We want to deter use of chemical weapons. We want to deter the use of nuclear weapons.

I do not believe we have a credible deterrence today.

Senator THURMOND. General Rogers, you have more than 70 colocated operating bases in your area of operation.

If the Soviets attack them with persistent chemical agents, what level of mission degradation would you suffer?

General ROGERS. I believe yesterday the Commander in Chief, U.S. Air Forces, Europe, said it would reduce the sortie rate by 50 percent. I think the members of the committee who were present saw the protective garment that a pilot has to wear and how it hampers his efficiency.

I have no reason to believe his figure is inaccurate, about 50 percent degradation.

SPECIAL OPERATIONS FORCES

Senator THURMOND. General Rogers, in your prepared testimony you mentioned the need for enhancement of our special operations forces capabilities.

Would you elaborate on this?

General ROGERS. I am not sure, Senator, that the people realize how important the special operations forces are to me as a SACEUR. I have these types of forces assigned from the United States, from the United Kingdom, from other countries.

There is a time out there when I need intelligence information that I won't be able to get except from my special operations forces. I need that capability as the SACEUR, because that is when they would come under me under those conditions. We need to be able to move them to the area where we wish for them to operate, to be able for them to operate appropriately with the proper equipment, to get their intelligence information back to us on a timely basis so that I am not blind as to what is going on over there from the standpoint of human resources.

So, I work this problem on special operations forces about once every 6 weeks with members of my staff to be sure we are doing all we can with those SOF nations so that they can accomplish their mission. That is what I mean.

I am talking about the aircraft we need in order to get them into position, the aircraft we need in order to get them out, the communications equipment so that they can report quickly and on a fairly wide scale, and that they have the other equipment that is necessary in order for them to accomplish their mission.

You know, Senator, that there are other purposes that special forces will serve other than just intelligence. At the outset I have to insist on intelligence being the first priority before we have anything such as direct action, before we have anything such as trying to form indigenous personnel to carry on functions behind enemy lines.

No. 1 is intelligence.

JOINT COMMUNICATIONS SUPPORT ELEMENT

Senator THURMOND. General Nutting, would you explain the function of the Joint Communications Support Element?

General NUTTING. Yes, Senator Thurmond.

The Joint Communications Support Element is a joint organization manned by personnel from all four services of about 500 personnel strength which provides basic tactical communications functions essential to the deployment and provision of command and control for one joint task force headquarters and accompanying joint unconventional warfare task force headquarters.

It is a communications capability essential to command and control of joint forces in crises situations or in the reinforcement of the overseas command as the situation might require.

It provides a variety of tactical communications, including high frequency radio, satellite data transmission across the board, a very vital capability to the projection of joint command and control capability.

Senator THURMOND. Interoperability of communications, or a lack of it, was a problem during the Operation Urgent Fury in Grenada.

Was the Joint Communications Support Element tasked to provide support for that operation?

General NUTTING. Senator Thurmond, as I understand it, there were some communications problems. Portions of the Joint Communications Support Element capability employed were not a problem. They were successful in their operations with one exception. A problem they encountered concerned difficulty in establishing reliable two-way high frequency [HF] radio communications between the island and the HF radio station at Norfolk. However, the cause of that problem was not interoperability or compatibility. It was due to the high number of HF communications requirements of all concerned which resulted in heavy congestion in the limited band of frequencies that would propagate between Grenada and the CONUS east coast.

I think we are making improvement in the physical or electronic compatibility of the tactical communications equipment of the various services. There is emphasis that must be continued on ensuring compatibility. This is one of the measures that the Readiness Command is taking, to be a voice for the joint force commander working with the services in their development programs to try to ensure compatibility.

We are making progress, but there are concerns that we continue to face.

THREAT OF SOVIET SPECIAL FORCES

Senator THURMOND. General Nutting, you mentioned the threat of Soviet special operations forces to the continental United States. Would you elaborate?

General NUTTING. Yes, Senator.

I base my concern upon my mission which is to exercise operational control in a joint sense over the strategic reserve of Army and tactical Air Forces in the United States and, in both the Readiness Command and the Joint Deployment Agency, the rapid deployment of those forces overseas.

I am concerned, as is Georgetown, as evidenced in the study that I referred to, about the vulnerability of our communications network in the United States, and the transportation network, both of which are interrelated and internetted with the energy distribution network.

The accomplishment of my deployment mission depends substantially upon the continued operation of our internal communications and our internal transportation capabilities. There are vulnerabilities in the system that are quite apparent. They have been discussed in general terms by the Georgetown study. They have been acknowledged before, but that is an articulate presentation.

We have a potential opponent who in his doctrine for many years has emphasized the importance of the rear, especially in World War II, on the strength that they must draw from the rear to continue prosecuting combat operations.

Soviet doctrine contemplates offensive actions in the tactical rear formations of their opponent and in an operational sense at theater level. We have seen evolve in recent years the capability of the SPETSNAZ forces and other infiltration teams of the KGB, GRU, and we, I think, acknowledge that they train for those kinds of missions.

Indeed, it is not unusual, it is commonplace, and our doctrine involves the same kind of operations. I believe that the increased capacity or capability of the Soviets in terms of airlift and sealift and infiltration capability, given modern means of transportation and communication, indicate that we should expect, were we to face a conflict situation which we hope will not eventuate, that their doctrine contemplates fighting in our strategic rear which is the United States itself. I, therefore, think we have to acknowledge that doctrine, the physical capabilities, our own vulnerability to that kind of action, and prepare accordingly.

We do obviously in a time of peace rely upon a number of local authorities, local police and county police and state police and, where necessary, national law enforcement agencies for our security. We contemplate in our proposed organizational structure a time or a situation that might exceed the capability of those authorities to handle a situation. I think we should contemplate a situation where military resources might be required. If that were the case, the Readiness Command is responsible and we are trying to survey our vulnerability with respect to basic capabilities and make sure that we are prepared to handle it.

Senator THURMOND. General Rogers, just two brief questions.

COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE

What threat do these forces pose to your command, control, communications and intelligence functions?

General ROGERS. A major threat, Senator.

Senator THURMOND. How about to your theater nuclear forces?

General ROGERS. You mean to those facilities?

Senator THURMOND. Yes.

General ROGERS. Yes. Not only that, they are dual capable, they are triple capable, with the SS-21's, SS-22's, SS-23's, all have chemical, nuclear, conventional warheads.

So, we would anticipate even in the conventional phase that those triple capable nuclear missile systems will attack the rear areas to hit just those facilities you are talking about.

I don't believe you mentioned our nuclear capability which they wish to take out before we have an opportunity to use them.

I gave an awful short answer, Senator, which is unusual for me, but we know that these SPETSNAZ are in Western Europe today in various guises. We see evidence of reconnoitering, and so on, in a number of areas.

What we do expect to have happen is that if they decide to make an attack, they will be in position at the time, will have reconnoitered the facility or the activity which they are supposed to knock out and we just have to expect from the outset there will be major effort on their part.

So, it will have a major impact on what we are trying to do.

Senator THURMOND [presiding]. Senator Nunn.

Senator NUNN. Thank you.

PROBLEMS IN GRENADA

Pursuing Senator Thurmond's question of a moment ago about the problems in Grenada with our tactical communications between our services, was there some problem that should have been anticipated and handled before we ever got to that stage?

My understanding is that the problems of communication were very serious between our services. For years a number of us have been pushing interoperability in NATO. I think we had a general assumption we at least have interoperability between our services on tactical communications. We find that is not the case.

How serious is the problem? Why was it allowed to get to that stage?

General NUTTING. Senator Nunn, with respect to the Grenada operations specifically, Admiral McDonald, as you know, is really the fellow who is best qualified to answer that question. I believe he has discussed it to a certain extent.

Senator NUNN. He said it was serious.

I will go to the second question.

How did it get to that stage?

General **Nutting**. It is a function of the way we prepare for war and that is the fact that the law charges each military department to organize, train and equip forces to operate in a particular environment for which it is responsible. That is too simple an answer, but that is where it begins, with the way we prepare for war.

Frankly, I think we are doing a better job at guaranteeing coordination across the services than we did 20 years ago. Twenty years ago you would find more items of electronic equipment that were not compatible. That does not happen very often today.

However, we are still using much of the equipment that was designed and produced 20 or 30 years ago. That is one of the major modernization efforts that must be supported to eliminate some of that equipment which is not interoperable.

We are doing a better job. There are selected items of equipment that are of concern today. My command has taken this as an implied responsibility for interoperability of the reserve forces in the United States and we are trying to monitor the design and development activities of each service.

INTEROPERABLE SERVICES PROCUREMENT

Senator **Nunn**. How much input do you really have in the services procurement decision?

If you see something is not going to be interoperable, what is your recourse, what can you do about it? Do you have authority to do anything about it? The answer is not very much, isn't it?

General **Nutting**. I can cite an example that indicates some influence. If you say authority, I have to say limited because the law says the services organize, train and equip. I certainly have the responsibility as an employing commander to make sure that they interoperate.

There was one recent example that I can cite where I became aware of a possibility of a lack of interoperability in one particular service system. I communicated my concern to the service concerned and to General Vessey. Thereafter, I must say over the last year the capability to interoperate has become a principal concern and I think it is going to be taken care of with acquisition of that new equipment.

Senator **Nunn**. Are you telling us nobody in the services is responsible for that?

General **Nutting**. I am not saying that.

Senator **Nunn**. Do you know anybody in the service that is responsible for it? Have you ever seen anybody wandering around over there jumping up and down when the services are starting off on different courses?

General **Nutting**. Perhaps not with a sign that says, "I am responsible for ensuring interoperability," but I think it is an implied responsibility of each of the service staff organizations in the research, development and acquisition processes. Certainly the Director for Research and Engineering and his staff oversee these programs. I try to provide the view from the field of the user.

I have voiced concern in the last year and I think it has been heard.

Senator Nunn. Would you feel that you had the authority to come directly to the Congress if you saw that programs were being developed that were not interoperable and you could not get anywhere within the service?

General Nutting. I think I have authority to do anything I believe is necessary.

Senator Nunn. Would you have authority to go directly to the Secretary of Defense?

General Nutting. Certainly, I absolutely would. In fact, I do on occasion when I am concerned about something.

In this case I felt it was a matter of interest principally to the developing service and I informed General Vessey, who has similar responsibility and concern, I, frankly, think the problem is going to be resolved favorably.

Senator Nunn. Who in the Department of the Army is responsible for interoperability to make sure that Army equipment is interoperable with other services? Where does that responsibility lie?

General Nutting. I can't tell you quoting from the operating manual or the law underlying service responsibility. It resides within the secretariat in the first place, the civilian leadership, and the corresponding military staff agency that is concerned with research, development and acquisition of equipment.

They are charged by law to organize, train and equip the Army. If the law does not specifically say so, I think it is clear today that they recognize an implied responsibility to ensure interoperability with the other services, and that system is working better.

Senator Nunn. General Rogers, in your command how much of a problem is this with American forces?

I know the extent of the problem with the European forces and American interoperability and lack thereof, but just within the American forces how much of a problem would there be with tactical communications?

General Rogers. I am not sure we really know how serious it would be just as they didn't know how serious it was until they got into a situation of anger and found what it was.

As of this moment, up to this time as the CINCEUR my interoperability problems relate primarily to my role as the SACEUR. Here we are better off than a number of commands because each one of my component commanders in the European Command wears a NATO hat, so he can assure there is interoperability at that level.

With respect to influencing these kinds of actions, I would just say that there has been an organization formed by the Joint Chiefs of Staff, the Joint Requirement Management System, which does look across the board at commonality and interoperability.

As a result, some systems have disappeared. Our problem in communications has been that the next generation of equipment is always to be better than the last generation. So, just about the time we get the next generation, the following generation is going to be so much better, we wait for it, and that is why, as General Nutting has said, we oftentimes are using equipment that is several generations old because we are always waiting for the next generation.

Senator NUNN. I would think that the average person out there, with the amount of money we spend on defense, would just assume, and I assume the average Member of Congress would, too, as well as those on this committee, that the Army and Navy radios could talk to each other.

We find out when we get in combat that they can't. You say we really don't know in your command until we really go to war.

Does that mean we don't have exercises between the services on a tactical level?

Every CINC we have had appear before us has said that he has to look at it across service lines. They are not going to fight a Navy war, Army war, Marine war or Air Force war.

The CINC's have a unique responsibility and unique vision. We are basically being told not only in Grenada did it happen, but in our own forces in Europe we don't know whether it will happen or not.

General ROGERS. In those instances we ensure that we have communications, that we have radios that we know will net among the services. But we have not had an operation since Grenada. I am not advocating we have one just to test our communications.

Senator NUNN. I would hope we could test radios without going to war.

General ROGERS. So do I, but I assure you we will do as we did in Lebanon. We will put liaison parties aboard just as we do across corps boundaries on the international zone to be damn sure that we can net so that there is no question about it.

Senator, who is it that has the authority in these areas? It is the Congress and it is the services.

REORGANIZATION

Senator NUNN. We are getting into reorganization now. We have identified an area here that Chairman Goldwater and I are looking at. It seems to me there is a fundamental flaw in the law.

General ROGERS. It is not lost on me what you have in mind.

Senator NUNN. It seems to me both of you have agreed we have a fundamental problem in the law.

General ROGERS. You have CINC's who are responsible for everything that happens or fails to happen in their theater of operations. You have CINC's that have no authority to force decisions upon services which will support our capability.

I think the word that was chosen by General Nutting was quite appropriate. It is a question of influence. It is a question of discovering problems through exercises, and so on, and then bringing it to the attention of superiors. If you can get it to a high enough level and get the interest, you sometimes can get a change.

We all as CINC's have authority to go directly to the Secretary of Defense.

Senator NUNN. You can only go to that well so many times a year.

General ROGERS. I can go to the well more often than others can because I am also the SACEUR. Under the terms of reference for the SACEUR, I can go to heads of government, ministers of foreign affairs and ministers of defense.

I have one advantage CINC's don't have if it is going to impact in the SACEUR area. I want you to know I use that opportunity from time to time not only with this minister of defense, but those of other countries.

COMMUNICATIONS

Senator **NUNN**. I have some questions on other matters in NATO in a minute, but I will wait until my colleagues have a chance. General Rogers, on the communications business, General Wickham said the other day in testimony before the House Armed Services Committee, "We have grown top heavy in the Army with noncombat capability." He went on to say, "There are more communicators in Germany than infantry soldiers."

General **ROGERS**. We ran an audit on that. I can't support him in that statement. I think he was exaggerating for emphasis in that area.

I ran an audit. I saw that in the press. I said run an audit through EUCOM. I can't support that statement. We have a lot of communicators who are there in a "stove-pipe" organization who report back here to him and others in Washington but we don't have more than combat personnel.

Let me say this. The audit we ran will not support that statement.

Senator **NUNN**. Could you furnish for the record the facts on that for us?

General **ROGERS**. Sure.

[The information follows:]

COMMUNICATIONS PERSONNEL

There are fewer communicators in U.S. Army Europe (USAREUR) than either infantry or all combat arms. There are 15,257 Army communicators (Career Management Field (CMF) 31) in USAREUR. This includes soldiers with 13 Military Occupational Specialties (MOSs) ranging from tactical radio operators/maintainers, to network technical controllers, to telephone wire installers. This 15,257 figure compares to 17,661 infantrymen (CMF 11) or to the 58,335 in all combat arms, including infantry, armor, field artillery, combat engineers, and air defense artillery. These figures are from USAREUR personnel records, as of 28 February 1985.

In addition to the communicators assigned to USAREUR, there are also 3,743 assigned to 5th Signal Command, the Army Informations Systems Command subordinate which operates portions of the Defense Communications system. If these communicators are included, the total of 19,000 does exceed the number of infantry, but not the number in all combat arms.

As new communications systems, such as Mobile Subscriber Equipment (MSE) and Digital European Backbone (DEB) are introduced and the older systems phased out, the number of communicators should decrease.

Senator **NUNN**. I have used up my time.

Thank you, Mr. Chairman.

Chairman **GOLDWATER** [presiding]. Before I turn this over, for your information, we have scheduled a hearing on joint communications, on electronic warfare, tactical warfare on March 14. We know it is a huge problem.

Senator **NUNN**. That is a fundamental reason why we want to get into this whole reorganization and authority of the CINC's that we are doing now. I think it is pretty evident.

Chairman **Goldwater**. Every time I think about it I get a little more pregnant. I think General Custer had the best answer: Don't take prisoners.

Senator Warner.

Senator **Warner**. Thank you, Mr. Chairman.

General Rogers, we first recognize that you are going to spend another 2 years on active duty for which this Nation is grateful to both you and your wife.

General **Rogers**. Thank you.

AIR FORCE AND ARMY TACTICAL SATELLITES

Senator **Warner**. General Nutting, following this question of communications, a subject on which I have spent some time, I have received some information that problems exist with respect to Air Force and Army tactical satellites—that the multiplex systems are incompatible.

Are you aware of that?

General **Nutting**. Yes, Senator, I am. I cannot give you a deep technical discussion on the problem, but I do recognize that the two services you mentioned are aware of the problem.

It is the intention of the Army, I believe beginning in the fiscal year 1986 budget, to purchase the multiplexer that is compatible with the Air Force satellite system and that problem will be overcome in that period of time.

Senator **Warner**. It is regretable, almost atrocious in a way, that it got that far, right up to the purchase of the equipment, before it was recognized.

I do hope, Mr. Chairman, the hearing on communications will focus on problems of this nature.

General Rogers, Ambassador David Abshire from time to time consults with Members of Congress and others. Recently he published an article appearing in the Washington Post entitled "NATO Facing The Facts." I read from this paragraph:

"The U.S. can count on seven or eight European members this year who will increase real defense spending figures by at least 3 percent."

Since then I have met with him on two occasions.

Apparently it is nine NATO nations now that are going to meet that 3 percent real growth across the board in all areas of defense spending.

On Monday of this week our Budget Committee will start its markup. There are a number of our colleagues who are really conscientious of the view that we should freeze 1986 defense spending at the 1985 level.

Should such a move ultimately be voted by the Senate, it would, in my judgment, have a very serious impact on the NATO alliance and, in particular, other parliaments living up to that 3 percent commitment.

My question to you is twofold.

First, will you define that 3 percent real growth formula for purposes of the record?

[The information follows:]

NATO DEFENSE SPENDING GROWTH

At the summit meeting held in Washington in May 1978, the heads of state of NATO nations agreed to attempt to meet a goal of real annual growth in defense spending of about 3%. The purpose of this agreement was to secure the financial resources to achieve the military capabilities necessary to meet the threat at the end of this decade (80s).

The definition of 3% real growth in defense spending is annual growth in defense spending excluding price changes. The method of excluding the effect of price increases from growth in defense expenditure depends on the use of a statistical price deflator. There is no standard, NATO-agreed method of calculating real growth; each nation decides on the price deflator that it will apply to spending figures.

Procedural differences in reporting and calculating defense expenditures make it difficult to compare growth statistics—whether these comparisons are made between nations or against a fixed standard, such as 3%. For this reason, I have constantly advocated that a nation's burden sharing performance be assessed by measuring the extent of its fulfillment of its agreed force goals.

Senator WARNER. Second, in your view, should the United States in fiscal year 1985 drop below a 3-percent real growth in its defense budget?

General ROGERS. First, you should understand my attitude toward the 3 percent. I think it is not a good measure to use. It measures input. It can be skewed.

We have found, for example, that nations that meet the 3 percent or exceed the 3 percent real increase, when you look at the implementation of the force goals which they have accepted—which is the only tool we have to cause them to do more for the collective security—the nations that may have been achieving a 3.5 percent real increase might in fact have only 50 percent of the force goals in their defense program and only fulfilling 70 percent of that 50 percent.

So, what we need is a measure of output, not a measure of input. NATO has not yet been able to devise a measure of output. I have always believed that since force goals are the only tool, if a nation has met all its force goals in the time frame, we give them an A; if they didn't, give them something down to F.

But having said all that, it is helpful for Ministers of Defense when they are negotiating with the Ministers of Finance to have that general guideline of 3 percent so that they will not be out of step with the guideline that has been agreed within NATO. So, it is helpful from that standpoint.

Should the United States go below 3 percent? It depends on the judgment as to what is needed to provide the unilateral security of this Nation and the collective security of the alliances with which this Nation is associated.

It would certainly send another kind of signal to the other side which would be, well, even if the United States with all of its resources doesn't meet the general guideline of 3 percent and with the interest it has in Western Europe, then why should we?

You know, the obverse of that is if the United States goes to 6.9 percent, you don't find many nations over there going to 6.9 percent as a result.

My answer is judge the needs of the defense budget by the security needs of this country, both unilaterally and collectively. I would hope that we would find that this country again exceeds the NATO guideline of 3 percent.

Senator **Warner**. Certainly the Chairman and members of this committee, at least speaking for myself, share that hope. Nevertheless, we are faced with the realities of this current deficit situation.

I have felt that for some time, whether 3 percent is a good guideline for a military planner or not, it is a tool that has been used by Finance Ministers of NATO Parliaments in getting that figure from their respective governments.

If we as a Nation were to fall below that figure for this fiscal year, it seems to me it might start unraveling in the NATO Parliaments in trying to meet that goal.

As you have said before and I am sure we will hear shortly again, one of the Soviets' principal aims is to slowly and continually drive that wedge between the United States and NATO and this might give further emphasis.

Within the NATO family today you are experiencing problems, of course. One which seems to me to be particularly troublesome is Greece.

Could you address that situation and the precarious problem that we have with respect to four of our bases in that area?

General **Rogers**. Greece is one of the 16 nations which I serve in my NATO role. Discussions of internal difficulties with any individual nation is obviously sensitive.

Looking at it from what happened to the U.S. personnel in Greece, we had to be unhappy, and I hope there was as high a level of unhappiness in Washington as there was in Europe at the manner in which our dependents were treated by Greek strikers running amuck through facilities used by Americans, particularly at one of our bases.

I happened to be meeting with the Prime Minister just about that time and the night before I arrived I was pleased to see that action was taken with the Greek authorities to stop that sort of thing.

Recently we have not had that difficulty. We have had difficulty with the service personnel in Greece who have been incarcerated and who have been tried in a manner which we did not think met the full level of justice that we have in this country. But that has dampened down now.

Here is what we face: The threat to kick us out of Greece when the Five-Year Defense Economic Cooperation Agreement has expired. What do you do? Do you sit back and wait in an undignified manner until we are kicked out?

I don't think so, not for the United States of America. As the commander, there are facilities and resources within Greece that we need. However, one would think that prudence would dictate that you ought to look to see, if we are going to be kicked out, where can we go and still accomplish the missions that are accomplished in Greece.

Then the question this country has to face, I think, is: Are we going to wait to be kicked out or will we move out on our own initiative?

Having said that, let us look at it from the standpoint of the Prime Minister. He was elected in a campaign which included rhetoric on withdrawal of nuclear weapons from Greece; that has not yet occurred. I am, in fact, underwriting the upgrading of the security of those storage sites after conversation with him.

He has said he is going to withdraw from NATO; that has not occurred. From time to time he has to look to his left flank and placate those who supported him with some kind of language that lets them believe he may yet do what we would consider would be inappropriate for Greece.

So, I think this year as Greece runs up to its election we have to put on our armor and be prepared in the United States and in NATO to hear rhetoric we don't like and attacks upon us.

DIFFICULTIES BETWEEN GREECE AND TURKEY

Now, I have not gotten to the difficulties we have on the NATO side in the southern region between Greece and Turkey and what we are trying to do to have a cohesive defensive plan for that region which is impacted unfavorably by the bilateral dispute between those two nations.

Senator **Warner**. That is a subject in which the committee is interested. Perhaps the witness can take a minute or two to address that subject, Mr. Chairman.

General **Rogers**. One of the key issues is when the SACEUR was mandated by his political authorities to find a means to bring the Greek forces back into the integrated military structure and succeeded in October 1980 doing that, the language of the reintegration proposal was agreed to by the previous Greek Government.

This government, the Pasok Government, would not have agreed, they say, to that proposal, and, therefore, as far as they are concerned it is not operative.

Now, the fact is in the language of that proposal agreed to by all nations is the operative directive for naval operations within the southern region, the Mediterranean, Aegean and Black Sea.

What needs to be done is devise the operative directive for the air command and control in the southern region, but this Greek Government does not agree with that and they revert back to the NATO document which is superseded by the reintegration proposal of 1980.

So, we have the Turks who say the operative directives are those which are in the integration agreement and the Greeks say no, it is the old 1956 document.

So, that is a confrontation that affects us for cohesive command and control arrangements, for sea and air, in the southern region, not just in the Aegean, but in the entire southern region.

Then there are bilateral disputes between the two nations as to whether or not certain islands can be militarized, islands in the Aegean. The Lousanne Treaty, and the Montreux Convention are interpreted differently by Turkey and Greece.

What we try to do is to be as neutral as we possibly can be and go into a damage-limiting mode under these conditions so as not to exacerbate the bilateral dispute that already exists.

These are problems that have to be solved between those two nations. We cannot use NATO exercises as a means to resolve them. Either side, I think, would like to have that happen.

The Greeks say that they have a 10-mile international air space round their island. In fact, that is in their 1931 law. But NATO accepts only 6 miles air space.

Greece wants us to never have aircraft fly between 6 and 10, including U.S. aircraft, and the Turks want us to fly between 6 and 10.

So, you find from time to time these kinds of complaints arising and ambassadors being called in for improper flight procedures.

There are a number of these kinds of disputes. I have just given you a few "for instances." What we continue to do is to try to work the problem and remain optimistic that we may yet find a solution.

I am working particularly on the full implementation of the integration agreement which would have the Greeks open two NATO headquarters in Greece. The Greeks have declared now that unless we stop all NATO exercises in the Aegean, they won't participate in any exercises anyplace.

What is generally not understood is that no nation in NATO should have the right of veto over other nations right to exercise in international waters and international air space.

Of course, the Turks would not accept that veto, nor could we, as a matter of principle in NATO.

Senator WARNER. Thank you.

Chairman GOLDWATER. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

INTEROPERABILITY LACKING

First, General Nutting, I gather we do have some continuing areas where we lack interoperability?

General NUTTING. In terms of——

Senator LEVIN [continuing]. Radios.

General NUTTING. Communications equipment?

Senator LEVIN. Yes.

General NUTTING. Yes, Senator, I believe there are some that are identified in operation of the equipment.

There is also a procedural problem, sometimes a matter of training and ensuring that procedures take advantage of electronic compatibility of the equipment.

Senator LEVIN. Can that problem be corrected by the Secretary of Defense?

We talk about accountability. At what decision-making level in the Pentagon do we get this corrected?

Can the Secretary of Defense correct it?

General NUTTING. Senator, you are talking, I guess, somewhat in terms of organizational theory. I would assume he has the authority to do that, yes.

Senator LEVIN. Is there any legal impediment, any statutory impediment to his exercising that authority?

General NUTTING. Not that I am aware of, no, Senator.

Senator LEVIN. General Rogers, welcome also.

NATO MULTILATERAL COMMITMENT

As I understand it, we have a commitment to reinforce NATO Europe with 10 divisions in 10 days. That is a national commitment that we have made?

General ROGERS. That is correct.

Senator LEVIN. A multilateral commitment?

General ROGERS. Yes.

Senator LEVIN. Do we now have the capability of meeting that commitment?

General ROGERS. No, sir.

Senator LEVIN. Apparently Assistant Secretary Korb said we did have that capability a few months ago.

General ROGERS. It includes not only 10 divisions. It includes 88 squadron aircraft.

Senator LEVIN. His reference was to 10 divisions.

General ROGERS. We do not have the capability, no.

Senator LEVIN. General Rogers, we keep hearing that we have to get our European allies to do more, we have to get them to do more. We all feel that. There may be some differences here as to what our level should be, our defense output.

I agree with you output is critical, not just input. There is no consensus yet in Congress on whatever our input level should be. We debate that issue. I think there is a consensus around here that our allies in general do not do a fair share in terms of sharing the common defense burden.

We just received a report, I believe, which Senator Nunn requested from the Congressional Budget Office analyzing the burden sharing report that the Department of Defense puts out each year.

One of the conclusions of the Congressional Office in its January 1985 report is that over time the U.S. share of the burden has been increased while the allies' share has decreased relative to their ability to contribute.

Would you agree with that?

General ROGERS. No, sir. I can provide you with figures that show that the share that the United States has borne has decreased over the years as the allies have reached an ability to take on more.

Now, if you use in your factoring everything that is in the United States or might reach Western Europe in case of a confrontation there and then charge to Europe everything you have here in the United States to include everything except that one National Guard division that ends up being in the strategic reserve, you are going to have a hell of a lot of money charged to Western Europe.

The question is: Is that fair? You have the string on these forces in the United States to send them to Central Command, Southwest Asia. Why don't you charge it to Southwest Asia, not charge it to Europe?

It depends on how you factor.

Let me get down to really some more specifics.

NATO DEFENSE BURDEN

Senator LEVIN. I don't know how you personally might factor. CBO I presume is doing the factoring the same each year. They are not comparing apples and oranges. They are looking at the burden sharing over time, I presume using the exact same approach each year, and their conclusion with which you obviously disagree is that our share of the NATO defense burden has been increasing while the allied share has decreased relative to their ability to contribute.

Do you disagree with that?

General ROGERS. I disagree.

I want to add one quick footnote. Western Europe has not been given credit for that part of the burden it does share. Now, that implies a lot. I will only expand on it if time permits.

Senator LEVIN. I think you have expressed that view before.

Would you agree, though, that our allies are doing less than their fair share?

General ROGERS. No, I would not.

I would agree with the statement that the Secretary of Defense made, and I was pleased to see he made it, in his 1984 report on burden sharing which said that when all factors are considered, the allies are bearing a fairly equitable share of the common burden.

I have not yet seen his report to the Congress this year. I don't know if it has reached here or not. It has not reached us in Europe.

In the end instead of pointing the finger at each other, we all have to do more. I mentioned this morning this country has some "war stoppers." We need to get on with improving those. They are war stoppers that can impact on me in the same way that insufficient ammunition stocks of our allies can impact on me.

Senator LEVIN. Your position is that we should prod them to do more, but they are doing their fair share? Is that in a nutshell your position?

General ROGERS. No, sir. They are carrying a fairly equitable share of the common burden.

Senator LEVIN. But that we should prod them to do more?

General ROGERS. We should all do more, that is right.

Senator LEVIN. But we should also prod them to do more?

General ROGERS. It depends on what you mean by prod.

Senator LEVIN. What do you mean by that?

General ROGERS. You are the man who used the word.

Senator LEVIN. You did in your statement this morning.

General ROGERS. I did not say prod.

Senator LEVIN. I will read your statement:

> "A continued ETS ceiling on conventional defense improvements will impact adversely, exceeding any benefits to be derived from prodding to do more."

General ROGERS. I correct my statement. I did use prod.

What I mean is don't let the Nunn amendment be passed. [Laughter.]

Senator NUNN. How about if it just comes close? [Laughter.]

General ROGERS. It came too close last time.

Because it is counterproductive, Senator Levin.

Senator LEVIN. Let me give you some figures and ask you to try to explain this to my constituents. Here we have a country, Norway, with a bigger per capita income or per capita gross domestic product than the United States has. Yet the Norwegians spend on defense $412 per capita. We spend about $819 per capita on defense twice as much as they do. Yet they have more GDP per capita than we do.

Then you take a look at countries with a little less per capita income than us, yet still within the range of our GDP, West Germany. Their per capita GDP is fairly close to ours. Yet the West Germans spend only $363 per capita on defense.. While we spend $819 per capita.

You look at Japan. Japan spends only $93 per capita on defense. I know that is not in your area commands geographic. Still Japan spends $93 only per capita on defense. Again, we spend $819 per capita.

Then when you look at the trading balance with Europe and the trading balance with Japan during the first 9 months of 1984, you see we have a $19 billion trade imbalance.

I don't know exactly how much we spend in Europe on defense, but it is a lot of money. Many, many, many billions of dollars are directly spent in Europe by our forces and the dollars contribute to the trade imbalance.

What is the direct spending of our forces in Europe?

General ROGERS. I will get it for the record.

[The information follows:]

DOD NATO REPORT TO CONGRESS

The fiscal year 1985 DOD Authorization Act tasked the Secretary of Defense to provide by 1 April 1985 ". . . a report on the status and cost of the United States commitment to NATO as reflected in the DPQ response and in the defense budget request. The report shall be an annual update of the Department of Defense Report entitled 'United States Expenditures in Support of NATO's first submitted to the Congress in June 1984 . . ."

The 1984 report showed that no data on U.S. defense spending for NATO can be meaningful without extensive caveats and qualifiers. In fact, that report developed several answers to the same question, and explained that any one of those answers would be wrong if it were used out of context and without the appropriate caveats.

For USEUCOM to attempt further to quantify the SECDEF's report is not practical. Note that the separate military departments provide resources to the CINCs through their Service budgets. While my influence on the service budgets is increasing, USEUCOM's needs compete within each service—with the allocation of resources to be applied against USEUCOM requirements. Hence, no service program has a specific cost associated with a CINC or theater of operation.

TRADE IMBALANCE

Senator LEVIN. It would be a significant sum which contributes to this trade imbalance. I have to tell my constituents, whose exports are getting harmed by the expensive dollar in part because of the trade imbalance and interest rates, that we are spending twice as much per capita on defense as Germany.

General ROGERS. Wait a minute, Senator.

Senator LEVIN. Let me finish my question.

How do I explain to my constituents a 6-percent increase after inflation in the defense budget when we are spending eight times more per capita on defense than Japan, twice as much as Norway, which has a higher per capita income than we do, and twice as much as Germany which has just about the same per capita income.

They have their threat. I am not saying we don't have a threat. I am not saying we do not have international obligations. We do.

General ROGERS. The way you explain it to your constituents is to tell them the facts as I see them.

Senator LEVIN. Are these facts erroneous?

General ROGERS. No, it is interpretation of the facts that is important.

Why are we having this big trade imbalance? I can tell you it is not because the Europeans want to see the dollar at the level it is. They would love to see it go down even though they do say that the one thing they are capitalizing on from the height of the dollar is their exports.

But that can be explained, Senator, every one of those four hundred-some dollars that Norway is spending on defense is for the collective security of NATO, the alliance.

Now, this country has taken unto itself, and thank God it has, the responsibility to defend the vital interests of itself and its allies, no matter where they are challenged. Part of that $819 goes to the defense expenditures in other areas than NATO.

So that when the country says that it has gone to a 5-percent real increase, you know that is a fine example to set, but not all of that 5 percent real increase can be attributable to the expenses for security by this country as related strictly to NATO.

That is the point I make. I know that every dollar that is spent in any of those West European countries is spent for the collective security of NATO. I don't want any misunderstanding on that.

This country also is providing the ultimate deterrent to NATO in its strategic forces. But it would do so with or without NATO. Because it is the ultimate deterrent, the first priority, in my opinion, has to go to the strategic forces that this country is underwriting. This country is obviously underwriting the cost of the second level of deterrence, the theater nuclear forces. I understand all of that.

I just say that there are some facts associated with those figures, Senator, that I think at least from where I sit, make sense. Maybe not from where you do.

Senator LEVIN. My time has expired.

Chairman GOLDWATER. The record will be kept open all day for any questions that you might want to submit.

You brought up the question of Norway. I might point out I think we also have to consider the geographic locations of these countries and what that fact contributes to the whole strength of NATO.

I can't think of a country that is risking more of its own personal life and security than the country of Norway because of its very, very peculiar geographic position which is able to give us, by virtue of this, a protection that we couldn't buy, we don't have that much money to buy it.

So, when we become critical of this country or that country for not being able to match what we think is the proper dollar contribution, I think we have to consider those things.

I think of Turkey, for example, a country with very, very low income, way down to the bottom of the scale. Yet I think I am right in saying they provide most of the manpower of NATO. They occupy a very, very strategic and dangerous position on the whole continent of Europe. Yet they are willing to risk the life of their country for NATO. I think that has to be considered when we decide whether or not our country has a per capita income of this and Japan has a per capita income of that.

You mentioned Japan. I remember we signed a peace treaty that told them they never could arm again. We have Douglas McArthur's name on it. It kind of makes it hard.

Senator Quayle?

Senator **Quayle**. Thank you very much, Mr. Chairman.

I have a couple of questions here in open session and then I do have a couple questions in closed session.

Are we going to go into closed session after open session or what is the Chair's desire?

Chairman **Goldwater**. I will go into closed session if the Senator asks.

Senator **Quayle**. I do have a couple questions for a closed session.

BUILDING PROTECTIVE BUNKERS

General Rogers, in your statement you talk about, and I know there has been a lot of attention on building protective bunkers for our aircraft at colocated operating bases, that we have made aircraft shelters, that we have enhanced those facilities to try to make them more survivable. I think this is certainly a good development.

Could you assess the survivability of those locations at critical points against any kind of ballistic missile attack from the Soviet Union?

How hard are these targets? Against a conventional ballistic missile attack from the Soviet Union, do we still have vulnerability at these places? Do you still see the threat?

General **Rogers**. The Soviet Union can reach any place in Europe with its missiles and conventional warheads. The soft spots at airfields besides runways are ammunition dumps and POL facilities.

If attacked, in that first wave of attack will come the loss of the use of some of these airfields. We understand that. There is no way that we are going to be able to have sufficient infrastructure funding to harden to the extent we would like all the vulnerable facilities at our airfields.

The key issues are providing X number of days of POL, X number of days of ammunition, sufficient hard stands, parking stands and shelters for those aircraft.

What we need to do for deterrence purposes is to get those aircraft over on to those colocated operating bases just as fast as we can for deterrent purposes in time of tension. Then should an attack come, we can protect them against an initial onslaught to the best of our ability.

There once was a time in NATO when there was no interest in building aircraft shelters. That has changed. That has changed with the current SACEUR.

BUILDING AIRCRAFT SHELTERS

Senator QUAYLE. I support the idea of building aircraft shelters. What I was interested in is the survivability of those aircraft shelters, particularly if we get into, as Secretary Weinberger said, SS-21s, SS-22s, and SS-23s, since we don't have a whole lot of defense against those missiles.

Therefore, you still have a pretty much, as you described, soft belly and a very high degree of vulnerability.

Is this not correct?

General ROGERS. We can expect these airfields to be hit by these missiles and some of them will be lost.

Senator QUAYLE. Given that, how about thinking along the lines of more defensive capability on these targets than what we have?

SDI

General ROGERS. As we discussed earlier, if the SDI becomes a reality—and those who promote it, most say that it has a capability for Western Europe—then the West Europeans are going to have to make the decision should they buy that additional capability?

Senator QUAYLE. Do you think the application of SDI to Europe would enhance the capability of defending targets?

General ROGERS. If it is proved that SDI will work and if it is proven it also can work against theater nuclear weapons, yes, it will provide that kind of defensive capability.

West Europeans don't arbitrarily dismiss this out of hand and arbitrarily oppose it. They say, "What is happening in the research? Get your people in it if you can and if in the future it proves to have something for those of us in Western Europe, then we will make the decision whether or not to purchase the capability."

Senator QUAYLE. Do the Soviets have active defenses against missiles such as the Pershing?

General ROGERS. The Soviets have been developing an anti-ballistic missile defense. How effective it is against incoming Pershings, I don't know.

Senator QUAYLE. How about the SA-10s, X-12s? Do you think that is effective defense against the Pershing?

General ROGERS. I don't know if it is or not and I don't know who knows whether it is.

Senator QUAYLE. Should we know whether it is or not?

General ROGERS. You are taking the wrong tack, Senator. Our mission is to deter war, not to fight a war.

Senator QUAYLE. That is what I want to do is deter war. The defensive mechanism which the President is talking about right now may make some sense. That is the point I am getting at.

The Soviets look like they want to have a fairly good defensive mechanism. Maybe we ought to start thinking more defensive. That is my point.

General ROGERS. In the meantime we can't wait until the year 2010.

Senator QUAYLE. You can theorize the possibility of a mix we might use.

General ROGERS. Therefore, we must continue to deploy the ground-launched cruise missiles and the Pershing IIs in order to deter the use by the other side and in order to deter any kind of war, not just the nuclear war.

The issue today is to ensure we don't have any kind of war with the capability that we have.

Senator **Quayle**. You just said, and I agree with you, that there is a possibility we might take a SDI concept to Europe down the road and that may be something we might utilize and that would certainly serve our policy of deterrence.

You said that and I support you on that. You have walked away from that.

General **Rogers**. I have not walked away from that. It is the Europeans who have to make that decision.

Senator **Quayle**. You discuss with them how to arrive at that decision?

General **Rogers**. It is one of the things that is causing the French and British concern at this moment because they have an independent nuclear force and particularly independent strategy that the French have for the use of those forces.

Senator **Quayle**. The only thing I want to say is, when we get into discussion of strategies and how we are going to mount that policy of deterrence, that we might start thinking and talking about more of defensive options. Obviously, we have.

Obviously it is down the road a bit. Obviously there are problems as we get to that point. I don't want to belabor that point.

MUNITIONS STOCKPILE

Another area is on the munitions that you have. How many days stockpile do we have on munitions?

General **Rogers**. That is classified.

Senator **Quayle**. Are the munitions that we have over there standard munitions or are they more the advanced or preferred munitions?

General **Rogers**. I don't want to get into detail in open session. I will say there are some advanced types of munitions where we are considerably short, don't even meet NATO standards, not only our own.

Senator **Quayle**. On the advanced type?

General **Rogers**. Yes, sir.

Senator **Quayle**. Why is that? Has there been preference to push the standard type versus the advanced type? What is the problem?

General **Rogers**. I can't answer that question because I don't have cognizance over those decisions.

Senator **Quayle**. Have you made any recommendations on what we ought to be having so far as standard or advanced preferred munitions and the mix?

General **Rogers**. I make it through the means that I am able to make it which is at the Defense Resources Board.

Senator **Quayle**. What would you recommend to Congress as to the mix on what munitions ought to be in NATO?

General **Rogers**. Let us talk about it in closed session.

Senator **Quayle**. You don't want to discuss that in open session?

General Rogers. Not how we stand in this country on our stockpile in Europe of certain advanced munitions, I don't want to talk about it in open session.

Senator Quayle. That is fine.

If we are going to develop and deploy our munitions against Soviet airfields, basically our plans have to be to fly right over their airfields and drop the munitions; is that not correct?

General Rogers. If you are employing munitions that are on manned aircraft, that is what has to happen until we develop a stand-off missile that will permit the aircraft to stand off.

Senator Quayle. Is that the direction we are going, stand-off?

General Rogers. Yes.

Senator Quayle. Is there anything we should be doing to look into that?

It seems to me there is a great vulnerability to have to get that airplane over the airfield and drop the munitions with the defenses the Soviets have. It is not a viable option.

General Rogers. It is not. Both in the nuclear requirements study which I report on later this month to the Ministers and in our concept for the attack follow-on forces with conventional systems is we have to try to get air-to-surface missiles, stand-off missiles for both those functions, as well as surface-to-surface missiles.

The technology is here to give it to us, so that we don't have to interdict, as we have always planned in the past, the tunnels, the bridges, the defiles, the rail crossing sites, and so on, with manned aircraft when great vulnerabilities will exist for the manned aircraft.

You know the technology is here to do it by other means. That is why I mentioned in my comments that when one looks at modernization, the most important modernization for me is to be able to support how I defend Europe as SACEUR with weapon systems that will permit us to attack the follow-on forces without exposing manned aircraft to the losses that we might expect.

Senator Quayle. My time is up. I may follow up with you or your people on this.

Chairman Goldwater. Senator Exon?

General Rogers and General Nutting, I want to join my colleagues in welcoming you here.

I understand several of the things I want to ask have already been covered. Maybe I can take a stab at two or three things here and move on quickly to a closed session. Some of the questions I am about to pose to you may well be outside your jurisdiction.

There can be some disagreement as to what is legitimately the responsibility of the State Department and what is legitimately the responsibility of the military?

I for one consider you a real expert on the defense, but also a pretty savvy individual as to what is going on in those countries. I suspect at least a part of your daily efforts have as much to do with diplomacy as with the defense of the area because they seem to me to be tied together.

First, I am most pleased that because of your urging and pushing and some of the work that we have done here, that the NATO Defense Ministers finally came up with a $7 or $8 billion enhancement of their infrastructure program for the next several years. I applaud that. I think it is good.

NATO DEFENSE MINISTERS COMMITMENT

My question is: Is it true that that commitment that they have made, as is so often the case here in the Congress of the United States, is up to annual review and if it is up to annual review, that is your judgment as to the chances of keeping that commitment over the next 6 years.

How secure do you think that commitment is?

General ROGERS. Quite secure, Senator Exon. It is a commitment by those nations to fund their percentage of that full amount over the next 6 years.

At the insistence of the United States, there has been agreement for what they call a mid-term review along between the second and third year of that 6 years, to take a look to determine whether additional funding by nations should be forthcoming over and above what has already been agreed.

It is very difficult to get the add-on to the infrastructure because nations budget 5 or 6 years ahead and it is difficult to get an add-on.

If I could get us this means to make another statement with respect to infrastructure. This country provides 27 percent of the infrastructure budget, just over 27 percent, and the Germans provide just under 27 percent; if either nation were to waiver on appropriating the funds, I am really in trouble because almost all those funds, 90 percent of those funds we manage at my headquarters.

So, the message is there. I have a ceiling put on this year because I can only spend $4.00 for every dollar I recoup. You weren't here when I stated it, but, sir, if you will look at my statement, I would appreciate your support on trying to eliminate that so that I can spend the money that the United States has agreed to.

Senator EXON. Your message is important and very clear.

SPAIN

Let me switch now to Spain. Spain is a member of NATO, but its forces are not part of the integrated military command. I am somewhat puzzled by the attitude in Spain today toward NATO. There is some talk about a possible referendum in Spain on continued NATO membership and NATO seems to be unpopular with a large segment of the Spanish society.

Can you comment on the extent of Spanish support for NATO? What is likely to happen and how much of a blow to NATO would it be if the referendum should take Spain out of NATO?

General ROGERS. First, now that Spain is in NATO, I personally would like to see it remain in NATO and eventually integrate her forces into the military structure. We can use her forces; they can make a considerable contribution on the southern flank. We could also use Spain and its geographical location for facilities for the rear area.

I cannot predict, Senator, whether or not Spain will remain in NATO. The Prime Minister in his campaign that elected him promised to have a referendum to see whether or not they should stay in.

Most recently, as you have seen, they have tied NATO membership to becoming members of the European community. If they are not accepted in the European community, they say they won't stay in NATO.

I am not sure when the referendum will be held as the Prime Minister indicated he intends to do. I really can't make a prediction.

One of the things that Spaniards may not realize is the importance to Spain of being a member of NATO, namely that for the defense of their own nation they would no longer be dependent solely upon Spanish forces, but the assets of Allied Command Europe.

If they become an Allied Command Europe nation with their forces, and I expect they would, they could turn to NATO to assist in their defense and not depend just upon their own forces.

I don't believe this latter point is understood by those who would be exercising their vote in the referendum, by many of them anyway.

Senator Exon. One last question.

FRENCH PUT EMPHASIS ON LIGHT MOBILE FORCES

As I understand it, the French have now placed more emphasis on light, mobile forces in their structure.

In your view, is this favorable from the overall standpoint in NATO?

Is that what you as NATO Commander would like to have them do or is that not in the best overall interests of NATO?

General Rogers. It is very helpful to us, Senator. I was unhappy that they reduced their ground forces by about 30,000. It is related to the additional funding that they are putting into their nuclear forces.

However, I was very pleased when they organized their Rapid Action Force and particularly when they declared that it can be used to support NATO after the political decision has been made for the French forces to fight along with NATO forces to defend Western Europe.

So, yes, it is very helpful, in my opinion. They have a ways to go in the organization and training of that RAF.

I would just add a footnote to this. As I have said before this committee on previous occasions, the cooperation and collaboration between the French military and Allied Command Europe is as good now as it has ever been, and it has always been outstanding, in my experience, in trying to achieve the objective of doing whatever we can in peacetime so that when that political decision is taken, we in NATO lose the least amount of time and effort in taking advantage of their forces.

Senator Exon. Is their rapid action force essentially the same or along the same general lines as our Central Command or Rapid Deployment Force?

General Rogers. Basically the intent parallels that of the Rapid Deployment Force previously. They are designing a force that can be deployed quickly both within Western Europe and somewhere else. It is light, they can get there and influence the situation favorably, with use in Western Europe built around helicopters.

We still have to face questions. I meet on a regular basis with their Chief of Defense on these subjects. We still have to face questions such as logistical support, and so on, if they are committed in the NATO area, recognizing that their doctrine does not call at this time for really long-range logistics support.

We will have to face up to those issues later on. It is just too early to do so now.

Senator EXON. You have indicated they have a ways to go in their organization in this area. I guess the same thing could be said of our RDF as well, could it not?

General ROGERS. I think we are much further along, much further along.

Senator EXON. We started earlier.

General ROGERS. We started earlier. What I meant by that was working out their concept, eventually their doctrine, getting the forces themselves organized in a fashion.

It is not my judgment to make. If General Lecaze, French Chief of Defense, were here, he would probably tell you the same thing, that they have a considerable amount of work they have to do before they feel comfortable with their force.

Senator EXON. Thank you, General.

Senator QUAYLE [presiding]. Do you have any questions in open session?

Senator NUNN. I have a couple questions in open session.

Senator QUAYLE. Go ahead in open session and then we will go in closed session.

Senator NUNN. General Rogers, last year after citing what you again cited today, the additional problems, and so forth, you added in response to the question how soon you would have to ask for nuclear release, "I am talking in terms of days, not in terms of weeks or months."

Is that still your assessment today?

General ROGERS. It is as of now. I want to caveat that, Senator, if I might.

I mentioned some encouraging things that have happened over the past year which, when implemented, will extend that time.

ALLIED BURDEN SHARING EQUITY

Senator NUNN. Senator Levin asked some questions about the allied burden-sharing equity and as I heard your answer, you said that you believe that the present contributions are "fairly equitable."

Now, the word "fairly" is, of course, subject to interpretation.

Can we say we could also interpret that as being fairly inequitable?

General ROGERS. No, you should not.

Senator NUNN. What does fairly mean in front of the word equitable? It means something is equitable or it is not equitable.

General ROGERS. Let us take "fairly" out and leave it "equitable" because I say to you, Senator, that we don't give the West Europeans credit for the share of the burden that they carry. We are not accomplishing anything, in my opinion, by pointing fingers at each other, either internally in Western Europe or across the Atlantic.

All of that is counterproductive to my mind and we all have to do more. What we have to do in both nations, I think, as I said earlier, is to convince our people that there are additional sacrifices necessary so that we can be successful at the negotiating table and make fewer sacrifices for security in the future.

Senator NUNN. I agree with that. I want to emphasize to you as I have in the past, but without a great deal of success I suppose, in terms of general impression, that my amendment last year, and I know your view on it and I knew it as we argued it and debated it, I have always been fully apprised of your view, and I am very grateful for that, but my amendment was not aimed at the burden-sharing argument.

I share Senator Levin's frustration on that. I would not agree with your assessment that it is equitable. My amendment was based on the obvious fact that unless our allies do what they are committed to do, an enormous amount of what we are spending in NATO is not going to provide a credible conventional deterrent.

That was the posture in my amendment. The troop withdrawal relationship was not intended to be punishment, but a simple recognition that if we are still going to have to turn to nuclear weapons in the first few days, as you reiterated today, we could use the resources for the furtherance of our national security and other areas much more profitably and with a higher degree of efficiency than continuing a policy which has no hope of providing credible conventional defense.

INFRASTRUCTURE FUNDING

I am encouraged by some of the things you have achieved. You recited some in your testimony today. I believe you cited that we have seen the infrastructure funding go up. By how much?

General ROGERS. Three times.

Senator NUNN. For the 5 years?

General ROGERS. I had 1 billion infrastructure accounting units for the last slice group. I now have 3 billion. Of course, inflation is included in that. That is a major step.

The 1 billion was a major step 5 years ago. So, this is really a major step forward, in my opinion. It gives me an opportunity, Senator, to accomplish within the program years almost all of what we call the vital projects which were carried in the top priority. That is important to me.

When you realize there were some nations who felt they could not afford more than about 2 billion, to finally get agreement on 3 billion among 15 nations was a major step forward.

Senator NUNN. During that 5-year period with those infrastructure funds of 3 billion units, will you be able to complete the required infrastructure at the colocated bases where we will fly our aircraft in the event of war, at the initial stages, from the United States?

Will you be able to complete that or, if not, what percentage will you be able to complete with the 5-year plan?

General ROGERS. I will be able to complete the minimum essential facilities in the next slice group for 100 percent of the bases. I will be able to program that with these funds by the end of 1987.

It takes some time then for the construction to take place. I will be able to program 60 percent of the remaining number of shelters in this slice group and the other 40 percent we will complete in the next slice group.

Senator NUNN. Sixty percent in this slice group?

General ROGERS. I will be able to do everything for the colocated operating bases except 40 percent of the shelters, about 430, I think, that I cannot build in the current slice group.

There is another constraining factor, sir, if I might. That is that when we went to nations to evaluate their capability to construct these facilities within the timeframe, we found that the construction capability of the nations is just about exhausted for this particular type of project during those slices of years.

Let me put that another way. The report we had was that there was not a large percentage more aircraft shelters that the construction industry in these nations could build over and above what we have programmed now for those years. That is a constraint, too.

Senator NUNN. When will you be able to get through with the minimum essential features and to actually come to the committee and say we now have minimum essential facilities ready on those colocated bases?

General ROGERS. With the programming, by 1987. I would hope my successor can come before you in 1990 and say we have the minimum essential facilities at all of them.

Senator NUNN. How about the shelters?

General ROGERS. Shelters, it is going to be in the 1990's.

Senator NUNN. How about the 60 percent of the shelters that you just stated?

General ROGERS. Only programmed by 1990. Here again, I don't really want to make an estimate on that one because it just depends on the contracts being let by nations and the construction being completed.

Senator NUNN. I don't want to get into it now and I am not challenging what you have said here this morning as far as the information given you, but with all the European unemployment problems and their slack industrial capacity—I haven't looked at construction per se—I find it puzzling that they cannot handle the kind of construction we are talking about.

That seems to me to be a mystery considering all the complaints we have had about their unemployment problems and their slack economies.

General ROGERS. Senator, I did this to find out whether or not if I asked for pre-financing—I know it is a dirty word here in the Congress—but if I asked for prefinancing of the remainder of the 40 percent, could the industries absorb it. I found that it would not be the prudent thing to do to ask for prefinancing because they would not be able to build them in those time frames.

Senator NUNN. Could you furnish a little more for the record on that point? I would like to pursue it.

AIRCRAFT SHELTER CONSTRUCTION

Construction companies throughout Europe have been responsive to the construction of shelters to NATO and U.S. standards. In general, the construction industry throughout Europe has the capability to accomplish the projects which are approved and funded. If programmed in a judicious manner, the industry could absorb the workload of constructing, over a 5-year timeframe, the total number of shelters required by the United States for in-place and reinforcing aircraft without inflationary impact on the civilian market. The current program is progressing in a balanced, coordinated manner to accomplish the construction of shelters and other high priority requirements.

FORCE STRUCTURE INADEQUATE

Senator NUNN. On page 7 of your testimony you talk about force structure. You said that our force structure is inadequate.

> Our fourth task is to add to our force structure, primarily with mobilizable, trained reserves. However, even with due regard to stringent budget considerations and other priority tasks, some active force structure growth is necessary to support modernization and requirements responding to the threat.

Are you talking about force structure growth beyond any projected in the 5-year defense plan we are talking about?

General ROGERS. I am really talking about the 10,000 I mentioned earlier to be able to absorb the growth that we need.

For example, TR-1 is a new system. We need additional manpower to absorb that. MLRS is a new system, not one that is replacing another one. Therefore, we need additional force structure and growth in the force structure for that.

That all goes back to the European troop strength ceiling which requires me to decide to defer modernization and keep what I have that I need, or send home what I need in order to bring in important new systems and stay within that ceiling.

Senator NUNN. I thought perhaps you were talking about the lack of pretrained manpower for reserve purposes that we have discussed before, where I believe you said that you believe at some point we have to go back to conscription of one form or the other.

General ROGERS. That is in there, Senator, but it is in such subtle language this time that it obviously——

Senator NUNN. Can I clear it up for you?

CONSCRIPTION

Do you still at some point need to think seriously about manpower requirements, pretrained manpower, and be able to mobilize with some form of conscription?

General ROGERS. Absolutely. Since I have been on that kick since 1975, I have decided not to make it an issue this time, but it is an issue, Senator.

By D-plus-90 days we are going to be short a minimum of 150,000 infantry, armor, artillery combat medics.

To me the answer is not just extending from 6 years to 8 years the commitment that one makes on enlisting or providing $750 bonus for those who would sign up for *X* number of years.

The answer is to have a draft for that purpose, a selective draft with the 1-year vulnerability for the individual by his birth date and by a drawing that is fair. We would train them for those combat skills and keep a string on them. Then when the time comes, we will have sufficient to keep on fighting.

I would expect, Senator, that the response I get from you on that would be that we are going to run out of ammunition over there with our allies before the United States runs out of combat skills.

I beat you to it, didn't I, sir?

Senator NUNN. I never would have thought of it. [Laughter.]

I was not going to bring the draft up, but it is a legitimate question that those, who oppose the draft, might ask.

Do you want to answer it?

General ROGERS. I still think we need that, not just for philosophical purposes—I put great stock in that, too—but just for the practical purposes, I think we should be doing that again.

Let us face it, sir, I know the draft is an anathema in this country. Unless the Joint Chiefs of Staff sit in front of you and say we must have it and the administration is going to support it, "Old Bernie" is just whistling in the dark.

Senator NUNN. I am still whistling with you.

Senator Wilson, do you have any questions?

Senator WILSON. Thank you, Mr. Chairman.

NATO RELIANCE ON CONVENTIONAL FORCES

General Rogers, in your professional opinion, can NATO today rely exclusively on conventional forces to deter a Warsaw Pact attack and should that deterrence fail, could we repel a Warsaw Pact conventional attack?

General ROGERS. I think, Senator Wilson, that the credibility of a deterrent to deter a conventional attack is very much in jeopardy. That is the way I would like to put that.

If attacked conventionally under current conditions, we would be required to face the decision on release of nuclear weapons very quickly.

As I mentioned earlier, and do in the text of my statement, I am encouraged by actions that I have seen taken over the past year, and some of which I have not mentioned this morning, such as the conceptual military framework which we are developing which when it comes to fruition and being done for the first time, I would hope would give us a means to judge is there a way to spend the resources we have more efficiency, more effectively.

I didn't mention it because that has not yet been completed nor adopted by NATO. So, I am encouraged by some of the things I see to improve our conventional capability.

STRATEGIC AND THEATER NUCLEAR WEAPONS ARE BEST DETERRENT FACTOR

Senator WILSON. Even encouraged as you are, I take it your chief reliance then in terms of deterrence factor is upon our strategic and theater nuclear weapons?

General ROGERS. The deterrent, the guarantor by deterrent happens to be the United States strategic forces. As I mentioned before you were able to be here, to my mind that must have first priority.

Senator WILSON. If I correctly understand you, it is safe to say that even if we were able to fund the entire 5-year defense plan and were able to meet all of our sustainability objectives, we would still, in your view, be compelled to rely primarily for our deterrence upon what you have given priority to in your statement?

General **Rogers**. You say "we." You mean the alliance?

Senator **Wilson**. I mean the United States.

General **Rogers**. If the United States meets its commitments toward its stockage objectives and the other nations do not make further progress as they have committed themselves to do—and some with milestone schedules for it—then after I have had the opportunity to reallocate that which is surplus to U.S. forces under those conditions, then I would have to resort to the request for release of nuclear weapons.

Senator **Wilson**. Wouldn't you agree then that, regrettable as it may be and imprudent as it may be, if we are confronted with a choice between a number of what are imprudent alternatives from the standpoint of defense spending and if we are required to cut the defense budget, that the reality is that we should look first to cutting into what is termed readiness, operations and maintenance, conventional readiness, as opposed to really undermining the credibility of that strategic and theater scale nuclear deterrent?

General **Rogers**. You have reached that premise, Senator, along a different route than I would have anticipated.

Senator **Wilson**. I will say how I reached it.

I reached it on the basis of not that experience, but on the experience of having been there for 2 years and having seen requests made in the President's and the Defense Department's proposals, their budget proposals, and I have seen after debate the lack of wisdom in undermining our conventional readiness, which I don't need to be persuaded of.

I have then seen this committee and the Congress as a whole and the two Armed Services Committees in conference reluctantly come to the point where they are nibbling a bit at strategic, but they are really compelled finally, I think, and rightly, to say that if we are going to cut, if we can't have everything that we should have, that we had better not undermine that deterrent that we have relied upon to keep us safe.

General **Rogers**. I would agree, as I have said, the first priority must go to the strategic nuclear umbrella of the United States as far as my area is concerned.

Second, we must continue to deploy on the schedule that we have had planned, 572 GLCMs and Pershing IIs, the first time the Soviets have been put in the same position they have had us all these years.

DON'T CUT O&M BUDGET

We can fire now from our soil to their soil with theater nuclear weapons. But don't cut O&M, Senator. That is why I gagged for a moment there as you made your transition from one point to the other premise.

O&M is the guts of our business. O&M gives us the funds to train. O&M gives us the opportunity to purchase the spare parts. It gives us the maintenance capability. It gives us the opportunity to pay our civilians so that we don't have to replace them with soldiers.

I know when one looks at the outlays in a budget year, that you get more back by cutting personnel and the second level of return comes from operations and maintenance funds.

Don't cut the guts of our business. There is no great constituency for operations and maintenance within the Congress, whereas there is a constituency for aircraft carriers, submarines and tanks, and so on.

That is why I made the comment that I did. I thought you were leading up to let us put our level of stocks, prepositioned war reserve materiel, where we have some very serious deficiencies over there—I will go into that in closed session—but put our level at the same level of our allies.

We end up then at the lowest common denominator and reflect what flexibility the SACEUR does have to utilize to the best purpose that which is in theater. Of course, the stockage level of the United States in Europe is related to the sealanes of communications and their vulnerability.

What the United States has committed itself to do, and this is something that should be argued out with the Department of Defense, I think, what the United States has committed itself to do is that every unit that reaches Europe will be able to fight at least until D-plus-60.

The question is: Is that appropriate in light of conditions in Europe today?

I think that is a judgment that the Defense Department has to take to accept these stockage objectives.

That does not mean that I disagree with you. I would like to have that flexibility built into that.

Senator **Wilson**. Thank you, General Rogers.

Thank you, Mr. Chairman.

Senator **Quayle**. At this time we will go into closed session.

INCREASE IN INFRASTRUCTURE FUNDING

Senator **Nunn**. Mr. Chairman, can I ask a general question on the public record?

You mentioned an increase in infrastructure funding and you said there are other things in bits and pieces.

Since we had the debate on the amendment last year that you have made your position clear again this morning, what has occurred that could be used to, in any way, put a favorable light on NATO besides infrastructure funding?

General **Rogers**. Infrastructure funding, that decision being a major step forward.

Senator **Nunn**. I agree. I think it is a major step forward.

General **Rogers**. In the ammunition stocks, now, that was not a commitment to reach the 30-day stockage objective that we have. I mentioned that some Ministers did lay out their milestone schedule as to how to get to their 30 days with that commitment.

Senator **Nunn**. That has occurred in the last 6 or 8 months.

General **Rogers**. That has occurred in fact at the December Ministerial. That was an encouraging sign.

Senator NUNN. Which Ministers?

General ROGERS. Ministers of Defense.

Senator NUNN. What countries?

General ROGERS. I will tell you in closed session. I don't want to put the bite on them publicly.

I do want to go back to the commitment that was underscored again to meet force goals.

Now, the past is prologue and is not very encouraging, but there was further commitment to meet those force goals. One of the landmark decisions that will impact upon conventional force improvement will come from this conceptual military framework which lays out the key mission components, the functions that have to be fulfilled to achieve those components and the capabilities that you must have to meet those functions. The CMF gives us, I think, a systematic way to exercise judgment in the logical manner to decide how to spend what resources we have more efficiently for conventional defense than we are doing now.

Senator NUNN. Is that new?

General ROGERS. At SHAPE it has been underway since September 1983. We will complete ours on the 12th of this month.

The remit was given to the International Military Staff by the Ministers in December 1983. I would hope that a decision on the direction to be taken on the CMF will be made by the Ministers of Defense in their May meeting.

I don't want to arrogate to the CMF more credit than it is due, but I do believe that it, plus the nuclear weapons requirement study that has taken us 5 years and now I think makes sense, can be a landmark decision if taken by the Ministers. I suspect it will.

So, there is cause for encouragement, Senator. Well, I have said enough about your amendment.

Senator QUAYLE. With that, we will now go into closed session. I will ask the staff to clear the room.

EXECUTIVE SESSION

Senator QUAYLE. General, I have a concern. You talk about appropriate strategy, the triad, nonstrategic nuclear and conventional.

NONSTRATEGIC NUCLEAR

I would like to focus on the nonstrategic nuclear. I am concerned on two fronts.

One is the effectiveness that we presently have with those weapons and, two, the security and effectiveness of those weapons to deter.

First, on the effectiveness. On the Hercules the basic capability of those weapons, the problems that we have with the PALS of getting the release of those weapons in a short period of time by the Commander in Chief, the 8-inch, the 155-millimeter, the Honest John, the problems as I see it, you have the short range of those weapons.

Again, you have the PAL requirement.

Finally, on the effectiveness brought up by Senator Warner, it does not seem to me to make a lot of sense to have Hercules batteries around Athens. I know there are some political ramifications.

I would just ask, are we thinking about and are we moving toward a more survivable type of tactical nuclear weapon?

You might want to move more to aircraft delivering capability rather than stationed at fixed points, particularly with the PAL problem and the communication.

The thing on that is the security aspect, particularly protect against terrorism. I am aware of the report done in 1980 when we found that [deleted] percent of our sites over there were penetrated before any kind of response to engage the intruders. I guess some of them have been updated, but still not nearly enough.

Could you tell us on the effectiveness, do we need to change our strategy of what we have done on that and, second, my comment on the security of these locations over there?

General ROGERS. With respect to the first, I mentioned we have been working for 5 years in SHAPE to try to reach the point where the SACEUR can stand for the first time before his political authorities and say, I am not asking for one more or one less nuclear weapon of these types in these locations than I believe are necessary deterrence. I cannot do that now. I have not been able to do that, but I will be able to do so at the end of this month when I make my report to the Ministers.

In the first place—and I want to make this point with you because there is a great complexity—we had to take a look at the whole rationale and the methodology from which was derived the annual report of the SACEUR to the Joint Chiefs of Staff on the numbers and kinds of warheads we needed in Europe.

[Deleted.]

We have looked at the necessity for modernization. If you want to reduce the number of warheads, you do that best through modernization if you are going to retain the security that we think we need. Of course, that latter is key.

So, at the Montebello meeting of the Ministers where they said, "You, SACEUR, by 1988 can have no more than [deleted] in the theater and come back and tell us how to do that," I laid down the marker with them that [deleted] was acceptable if it is tied to modernization.

Get rid of the Nike-Hercules and replace it with the Patriot and we can't do that fast enough. Every year the Patriot is delayed coming into the theater, the worse it is as far as I am concerned.

Look at air-to-surface missiles, look at follow-on Lance, for example, longer range. Look at whether or not we need artillery-fired atomic projectiles. If we believe we do, shouldn't we have modern warheads in which we have confidence?

The answer is yes.

And shouldn't the artillery projectiles be able to have longer range, and the answer to that is yes.

Another one we looked at was atomic demolition munitions.

I don't want to disclose to you gentlemen before I have had the opportunity to brief my Ministers on what position we have taken on all of these things. But when you consider that if you fired an atomic demolition munition and you get the judgment rendered by experts that you can't use that soil for sooner than 1 year and maybe as long as 5, the thought has to cross your mind where are you going to use those weapons even if authority were given.

So, we have taken all that into account and in the last week of March we will show the Ministers our projected nuclear weapons requirement for [deleted]. Then show them the composition of the stockpile today; then present the preferred composition of the stockpile in going under the [deleted] ceiling of Montebello; then set out the actions nations must take and the actions the alliance must take to get to the preferred composition for both end [deleted].

I think that report, if accepted, will set the direction for nuclear requirements into the 21st Century. [Deleted.]

The thing I fear most is that my presentation I am going to make to the Ministers will be leaked to the press before I have a chance to present it to the Ministers and it is argued in the press before I ever get a chance to report.

Senator QUAYLE. One thing on the effectiveness. Patriot still has the same PAL problem that Hercules has.

General ROGERS. Patriot is non-nuclear. That is a conventional warhead.

Senator QUAYLE. That is the problem now, isn't it?

General ROGERS. We have some problems on PAL devices. Each generation that has been produced has a more modern PAL device, is more effective. That is why I was so pleased, Senator Nunn, you saw your way clear to keep the 155 going.

I now will be able to tell you the number of modern 155 warheads we need. I appeared before the Warner subcommittee here one year and said to you we have this study under way, asked you to keep the 155 modernization program going, but I couldn't tell you the numbers I needed.

I will be able to tell you the numbers I need now along with the 8 inch. I am most appreciative you found a way to keep that program open.

GLCM

Senator QUAYLE. On the effectiveness I would like to look at some kind of strategy.

Will there be more reliance on Patriot?

Perhaps the aircraft will be more of a possibility in this aspect. I would like to sit down with you or somebody else and look at the long-term strategy.

General ROGERS. We need a follow-on to Lance, I think, with a longer range, more accuracy. I think we need the standoff air-to-surface missile. I think we need the modern artillery-fired warhead with greater range.

We need to get rid of the Nike-Hercules as fast as we can. We need to replace the barrier capability of the ADMs with something more conventional so that there is no need for ADMs in the structure any more.

Senator QUAYLE. As to security on these installations, I am sure you are aware U.S. command reports [deleted] of the installations were penetrated and an exercise intrusion force gained access [deleted] before a response force was able to engage it.

I know we have taken some action to try to get more security. How many of these installations do we have?

General ROGERS. We have [deleted] under my cognizance. Of that [deleted] the number that are going to have intrusion detection systems placed in them, I think is [deleted].

Senator QUAYLE. How many of those are you fairly well along on the system?

General ROGERS. I will have to furnish that.

[The information follows:]

GLCM

Currently we have [deleted] sites with an operational IDS, to include [deleted] and the interim GLCM site at [deleted]. All these sites were U.S. prefinanced. Additionally the IDS for [deleted] and the interim GLCM site at [deleted] will be a U.S. prefinanced "Safe Nest" system.

On 16 Nov 84, NATO awarded a contract to FACE Standard of Italy to install IDS at [deleted] other nuclear sites in ACE. The contractor is required to complete and demonstrate a prototype site by Sep 85; all remaining sites are to be completed by March 87. GLCM MOBs [deleted] are included in this contract; however, MOBs [deleted] are not currently included pending final deployment decisions by the host countries. The sites will be added to the contract when permission is received from the Netherlands and the United Kingdom. A total of [deleted] sites will not receive IDS as they are projected to close prior to receiving three years beneficial use of the IDS.

General ROGERS. The reason is that there was a delay in NATO in deciding to which outfit to give the contract. Then when they gave it to an Italian firm, we lost another year while it was challenged by the United Kingdom.

It has been cleared up. The contract was let last November. They have 10 months to come up with a prototype to be accepted and 40 months from November to get them all in place.

Now, hand in glove with this nuclear weapons requirement study goes another study. If these are the locations which will need the weapons and if in fact we can reduce, where is it we need storage space and can we close storage sites?

One of the things I said in front of this committee on one occasion was I knew I was pouring money down a rat hole by upgrading the civilian engineering security of these sites, some of which were going to be closed, you see, but I didn't know which ones. Now I will know.

We will be doing our job much more efficiently. You know of the work that Rich Wagner is doing in this area. Under him we have a standing group in SHAPE and EUCOM and there is a senior level group that is looking at survivability and security. There is enough pressure generated on that for me to move ahead.

I have funds for the IDS marked in the infrastructure program. We are just waiting for them to tell us when they need them and I will make those funds available.

Senator QUAYLE. I would like to be kept posted. This thing first started back in 1972 when the Israelis were attacked at the Olympics by the PLO. We have been on this thing.

Then we ran this intrusion exercise and we penetrated all of these. I understand the problem of not knowing which ones to close or not close. I think you will find when you get back that probably [deleted] of the sites have been increased maybe up to [deleted] out of—I think they have reduced the sites from [deleted] to [deleted]. You can furnish that information.

STRATEGY EFFECTIVENESS

On effectiveness of strategy, what we are doing on that I think is exceedingly important and something I am very interested in.

General ROGERS. We developed a team made up of a number of nations' representatives. We went through four scenarios against sites of various nations with the special operations forces, United States, that come under me and their mission under these scenarios was to penetrate as best they could.

What we found was that the security detachments are quite good at meeting the inspection requirements. You have to see if the man is all right to come in and these sorts of things, but they are not very good at defending the site.

By the time you have run them through four of these scenarios, they become much better. To help ease your mind a bit, I raised it with the Allied Chiefs of Defense and gave them a briefing on this last December and said we have to do something about it. They have agreed.

We are trying to organize a group allied command wide. I can provide the people from the United States side to go in and attack the sites and train the security detachments. We are getting some attention consequently.

Senator QUAYLE. This whole terrorism petrifies a lot of us. I urge you to do so as quickly as you can.

Senator Exon?

Senator EXON. Thank you, Mr. Chairman.

MINE LAYING AND MINE SWEEPING

General Rogers, we got into the NATO subcommittee yesterday about the mine laying and mine sweeping activity of the Navy and to some extent with regard to NATO.

You have testified in front of our committee on many occasions that if there should be an attack launched on NATO, we would certainly in a very short order be dependent on sealanes and we have to keep the sealanes open. I remain somewhat concerned about the NATO Navy's ability to keep those ports open.

How do you feel about the capability that we now have, we and I guess over there essentially our allies, to keep the ports open to get these reinforcements and supplies in by ship?

How are we sitting in that area right now, in your opinion?

General ROGERS. I think you will find I am more comfortable with the Mediterranean, the Baltic, and Black Sea than SACLANT and CINCHAN would be with the area in the Eastern Atlantic and particularly the area in the channel.

On the other hand, there is a requirement for additional mine sweeping capability, mine clearance capability, to be assigned to Allied Command Europe.

It exists, but nations sort of want to keep it under their own control for reasons you say, to keep their local ports open, many of which will be closed by Soviet maritime shipping that happens to be strategically in place and dumping mines over the side.

So, we need additional mine clearing capability in my area so that when I come to mine warfare in Allied Command Europe, that is the area where I will put my options.

Senator EXON. Would you address our offensive mine laying capability?

General ROGERS. [Deleted.]

Mine warfare is of sufficient importance to the three major NATO commanders. We conducted a special briefing for Allied Chiefs of Defense—the Chairman of JCS equivalent—to bring to their attention those areas where we think nations ought to try to improve.

Senator EXON. The bottom line is that you have a concern in the Atlantic area as far as mine sweeping is concerned and you are fairly well satisfied with our offensive capability in mine laying?

General ROGERS. You are putting it about right, fairly well satisfied. But "fairly" became an undefinable word today, so I am not sure how to apply that.

KGB AND SOVIET LAND FORCES

Senator EXON. In your testimony you expressed some concern over the increasing capability of the KGB and Soviet land forces to attack critical military installations.

Could you comment on how serious you think that potential threat might be in the Aleutians where I suppose we would be exposed to a surprise Soviet attack there [deleted].

I was wondering if that might have been the reason we have recently planned to put a light infantry division up in that area? Is that just a coincidence or is that one of the reasons they were placed there?

General NUTTING. Senator Exon, I would like to address the subject as it relates to the continental United States as well, if you are interested.

Senator EXON. I sure am.

ALEUTIANS

General NUTTING. Specifically to the Aleutians, there is concern carried principally by CINCPAC for installations important to him for [deleted]. That is a specific concern. It supports both his defensive and his offensive plans. As things now stand, he is responsible for security of those islands and the installations.

I have responsibility in peacetime for the security of mainland Alaska and [deleted], yes, but I would go beyond that.

I might also add that we have just last week concluded a major joint exercise in Alaska that focused for the first time on that kind of threat. We exercised the National Guard forces of Alaska including the Alaskan Scouts.

We used our own conventional special forces, some reserve components, to role play that kind of threat, to check out security arrangements. It is the first time that has been done. We activated Joint Task Force Alaska, checked out our communications capability and ability to control those kinds of activities.

I would say to you that the [deleted].

There are some [deleted] for example. [Deleted.]

We have always been concerned about those ships and their security in the middle of the North Atlantic. I am now concerned about security against that kind of capability which exists in small numbers of people with fairly easily transported weapons that could put a crimp in our entire deployment system.

We have to do a better job surveilling those kinds of vulnerabilities and making provisions so that we are adequately able to accomplish our military strategy. [Deleted.]

Senator QUAYLE. Would you yield?

I am going to have to leave. I will let you and Senator Nunn finish up.

The staff tells me, General Rogers, that in open session your statement that Germany has accepted chemical weapons, according to them, is a classified piece of information. There is some dispute. They want to strike it from the open record.

General ROGERS. I appreciate that, but it is in the FRG Defense White Paper of 83 which is unclassified. It says they, the Germans, know that they have chemical weapons on their soil and they know how many and where they are.

Also, Lothar Ruehl, a Defense Staatasecretair, has publicly said as much within the Parliament. It has now become unclassified. But I appreciate your interest.

Senator Quayle, I owe you an answer and let me give it to you very quickly. [Deleted.]

And so it is with some Navy ammo and war readiness kits for the Air Force. The point I want to make is that overall U.S. stockages we stand so much better than those of our allies, but we do have some "war stoppers" in our U.S. stocks in Europe and we need to address them in the Congress.

Senator QUAYLE. I would like to look at that information in more detail.

Senator EXON. General Nutting, I might follow up with a last question.

The exercise you conducted last week which has just completed, do you have results back on that?

Did the exercise prove about what you anticipated? Did it elevate your concern or keep it about the same?

General NUTTING. I would say, although we have not completed our after exercise analysis, it confirms, in my opinion, the need to focus some attention on that Soviet capability and the implications for our deployment system, our intelligence collection system and the overall implementation of the strategy.

We had some successes and we saw some things that didn't happen as effectively as we would have liked; about what one would expect, but nothing I would call alarming. I think it is a clear indication that we need to focus some attention and probably some modest resources on that problem.

Senator EXON. General Rogers and General Nutting, thank you very much.

Senator NUNN. General Rogers, just one question.

ALEUTIAN WAR RESERVE STOCKS

We have gotten a copy from the Defense Department of classified reports on Aleutian war reserve stocks by the Senior NATO Logistics Conference. This report is in some places positive and in some places very discouraging.

Have you seen that?

General ROGERS. Yes, sir. That is why the attention was attracted to Ministers on this. Candidly, I found some Ministers all of a sudden discovering things that we had all known and making such statements as: "If we run out of ammunition we are going to have to stop the war. We have to do something about it."

Some of us have been in that business for a long time, you see, and it was a little discouraging that Ministers just discovered these facts.

Senator NUNN. I spent last summer trying to reiterate what you have been saying so loudly on that point.

General ROGERS. That is right. When one Minister who had been in his position for 2 years made such a comment, the major NATO commanders looked at each other in astonishment to see that he had finally discovered that fact.

As a consequence, we built some heat under the matter. This Logistics Committee came to the major NATO commanders and said tell us, if you are going to prioritize, which ammunition would you put in priority for procurement by each nation. We have done that.

It is based on that prioritizing that the nations are making their commitment to increase ammo stocks. There were two nations that made commitments to increase stocks that also have milestone schedules for accomplishment.

One was Canada. I have forgotten the other nation.

Senator NUNN. Could you furnish for the record an update, since the report was written as to what changes have come about in terms of what they are planning for the next few years, as a supplement to that report?

General ROGERS. Yes. We can pull that together, sir.

[The information follows:]

AMMUNITION PLANNING

Ammunition planning guidance was provided in the Defense Guidance fiscal year 1986-90. This gives the services and commanders planning goals to consider in the allocation of critical resources. Ammunition and other sustaining resources now should be fully integrated with the force structure they support in meeting national military commitments.

Senator NUNN. General Nutting, I want to ask you one question.

We are going to be in a crunch in terms of budget without any doubt, not just this year, but the next 4 years based on my assessment, Senator Warner's estimate, Senator Quayle's, and everybody else's. Senator Wilson brought that out.

AIRLIFT AND SEALIFT CAPABILITIES

What is the argument against taking our forces that are in this country and determining the airlift and sealift available for them, having those that are capable of being transported in early stages of any war in a high state of readiness, looking at those that will go in the last stage and staggering our readiness so that we can save some funding based on the fact of our ability to transport and some divisions can't get there before 30 days, 40 days, 50 days, 60 days?

Will you give me your view of staggered readiness based on capability of fighting in any likely scenario in terms of airlift and sealift?

General NUTTING. Senator, I think it has been a fact of life for many years.

There is a staggered readiness schedule and to a certain extent, I believe the services supply resources against that time schedule. I think it already exists.

Senator NUNN. It may, but I am thinking of something that may be much more than that. It may exist in terms of just the priority list in terms of U.S. equivalent. I think our goal is to have very high readiness in all positions.

If we are looking for a way to save money without damaging our fighting capability, shouldn't that be an area that is logical to pursue?

General NUTTING. I would say that that is one possibility. I really do believe that that is done to a certain extent now. I would agree that if you were able to match that kind of readiness progression against a growing dynamic mobilization capability, it certainly is a point to consider.

I am not sure that the art is quite that scientific at this point. It would depend, I think, largely on the situation we faced in the world.

I might cite the example of the Falkland Islands. There somehow was acquired a rather substantial mobilization capability in a very short period of time to move an essential force to the Falkland Islands.

Senator NUNN. That was in the planning of the British. I was hoping we would have that kind of planning. They had already planned that kind of thing. That is what we were supposed to have been doing on our lift and CRAF.

General NUTTING. Yes, sir; and the 600 ships that NATO should provide for surface deployment. We are talking about 95 percent of the deployment going by sea. We have to have a capability to rapidly bring together that shipping that is available.

Senator NUNN. Could you furnish for the record—I don't want you to go to a new study, but could you furnish what you have already on that subject for the record?

General NUTTING. Yes.

READINESS

Senator NUNN. In terms of how our divisions are composed now, the degree of readiness and if we do stagger readiness, whatever documents you have?

General NUTTING. Yes, sir; those will be service documents to a considerable extent as they organize, train, and equip their force and determine on a fairly specific basis where to put their priority.

I will acquire what is available, yes, sir.

[The information follows:]

STAGGERED READINESS OF U.S.-BASED FORCES

Senator NUNN. General Nutting, as the defense budget levels off over the next few years we are going to have to find ways to reduce costs across the board in investment, in readiness, and even in personnel. Wouldn't it make sense to lower the near-term readiness of some of our US-based Army divisions and Air Force wings that would not be immediately deployed overseas in a national crisis, especially since we lack the lift capability to deploy all of these forces overseas quickly anyway? In what ways could this be done—reduce operating tempos, slightly lowered manning in non-critical skills? In your view, how much could these measures save?

General NUTTING. As discussed earlier, I believe that the services are already organized along the concept of "staggered readiness" which you describe. The Defense Guidance sets forth priorities in applying resources to the maintenance of readiness. [Deleted.]

Lowering the near-term readiness of US-based Army divisions and Air Force wings that would not be immediately deployed overseas in a national crisis is another way of describing the current system used by the Services to maintain "staggered readiness." The Army, for example, uses the Department of the Army Master Priority List (DAMPL) to establish a "first to fight—first equipped" priority list. Units are now rank ordered based primarily on their sequence of deployment and priorities are established for equipment and personnel distribution systems. Modernization generally follows the same philosophy, but with added management for special fielding considerations. In addition, authorized levels of organization (ALOs) have been established for Army units to manage distribution of constrained resources. The unit ALO is based on its mission and budget allocations. It expresses military personnel authorizations as percent of required unit structure; unit equipment fill is usually 100 percent for the top three ALOs.

All the Services use similar systems to ensure best use of dollars and resources. There are practical limits to the linking of ALO, DAMPL, and time phased force deployments. These limits arise from refinement of plans, changes in units, and changes in lift availability. Necessary multi-mission tasking of units is a further complication. Priorities must consider all missions and likelihood of employment. We are effecting savings through use of "staggered readiness" at present. If we further reduce the readiness of late deploying units, we would have difficulty in preparing them for deployment in a combat ready state.

Senator NUNN. Those are all the questions I have, General Nutting. Let me ask General Rogers a few.

O&M FUNDING

General Rogers, how high a priority is O&M funding to you?

General ROGERS. It is fairly high. That priority is registered not only with the Congress, but also with other places.

In the specific priorities that I list, the second one is M-Day improvements. The first one under M-Day improvements is POMCUS. So, it is very high.

I go down through six priorities. The first priority is what I call overarching, people relief from the European troop strength ceiling and continuing the GLCM-Pershing II deployment. That is the package of the first priority.

The second priority, POMCUS is at the top.

Senator NUNN. The Nunn amendment should gain no more than 49 votes; is that right?

General ROGERS. The Nunn amendment gave me no more than 49 votes?

Senator Nunn. That would be your preference, would it not? I am kidding.

General Rogers. No, but I do want to make one point.

As viewed from over there, it was counterproductive. Motives, we had no problem with that.

I remember back in the days when the Mansfield amendment was stalking the Halls of the Congress and the action you took with an amendment that diverted attention away from that, you know, tooth-to-tail. We all appreciate that.

As to their sensitivity, "What would you say in the Congress"—this is the question I get—"If we passed such a resolution in the Bundestag that if the United States does not do so and so, Germany is going to do such and such?"

My answer to that question is I think that the Senate would be disturbed if that were done. Now, maybe not. We appreciate your trying to keep from withdrawing those forces, Senator Nunn, but with the requirement that had to be met in your amendment, I believe you were guaranteeing the withdrawal of those forces starting in 1987. They would do less rather than do more.

Senator Exon. I think it is unfair for the general to be as responsible as we want other people to be. It is an inconsistent position.

Senator Nunn. The Germans have been spending on a per capita basis, GPN, for years less than we have. We have been trying for about, at least since 1973 or 1974, theoretically since 1968, to convince our allies that we wanted a credible conventional deterrent and we have not been able to convince them, and your testimony indicates that they would have had a level of frustration far beyond what is evident in this country.

I think our patience with our allies, particularly in the European thing when our troops originally went there in 1950 for a few years.

Our allies have an increase in their prosperity. I think our patience has been unparalleled in the history of the world.

General Rogers. The impression is that it is not of vital interest to this Nation to keep forward deployed forces there?

Senator Nunn. No; we have had 60,000 almost increase since 1977. If we withdrew all 75,000, we would still have only 15,000 less than we did in 1977. It would not do away with our NATO commitment. It would not in any way keep us from keeping our NATO commitment.

It would simply recognize we are spending our taxpayers' money cutting vital programs over here, doing grave damage to our fiscal policy, risking international financial repercussions, the like of which we have never witnessed and we have been doing a huge expenditure that is absolutely of no avail except in some psychological sense unless our allies do their part.

It is not a withdrawal from NATO.

General Rogers. You must take into account the level of threat we face today as contrasted with what we faced back in 1949 which is completely out of balance to what it was then. [Deleted.]

You would be surprised at the number of nations, with withdrawal of 90,000 U.S. forces from Western Europe who will tuck under and reduce theirs.

Senator **Nunn**. If the British go ahead with the Trident program, they will have to have a drawdown. There is no other way.

General **Rogers**. Sir, I am going to face up to that one and look at it squarely in the eye before long and they may well have to cut back on that. The pressure is building up for them to do that.

Senator **Nunn**. They keep a lot of those back in Ireland anyway, that all counts as part of the central front.

What percent? Half of them?

General **Rogers**. [Deleted.]

Senator **Nunn**. We hope, on the QE-2.

Senator **Warner**. Could we have one word from you, General Rogers, because each year you touch on it, the concern for the people and their families? The dollar in its present posture, does that help?

General **Rogers**. Yes, absolutely. There is no question about that. When I talk about people and people programs, I talked about funding earlier to Mr. Wilson on operations and maintenance funds, how important those are for training.

To cut those funds to the point where we can't give our troops meaningful, tough, mission-oriented training, the psychic compensation they get is reduced. Psychic compensation is very important in our business, to see that their leaders have resources in order to care for them and their families which often come out of operations and maintenance funds.

It is not just pay by any means. It is not just maintenance and repair of facilities which is important, but it is also the psychic compensation that they get.

That is why I cringe every time I hear consideration being given to cutting operations and maintenance funds because that is our guts.

Senator **Exon**. One last comment.

We keep getting in diplomacy. I voted for the Nunn amendment. We wanted to throw a shot across their bow over there to help get done what you told us you wanted to get done. Maybe it was not the right way, but we did get their attention. I don't know whether the end result is good, bad or indifferent.

I suspect one of the things we fail to realize here when we keep pushing our NATO allies is that their economic situation is not overall as robust as ours is today.

As I understand it, we are still draining capital money out of those countries at a near record rate with the overvalued dollar and their money is coming here because of our high interest rates.

I suppose from an economic standpoint it makes your job of getting them to keep their commitment money-wise that much more difficult, does it not?

General **Rogers**. It does, Senator. The major impediment to getting done what needs to be done is the one I mentioned, convincing those people over there and in our country that there is a threat to their freedom and our willingness to spend more and our voices being heard by the legislative departments. It is not much for each person.

The force goals that were established in 1982 for the period 1983 to 1988 would have given us the kind of conventional force we have been talking about to frustrate a Soviet conventional attack.

When we factored out how much it would cost the man in the street overall for this country, it was an additional $38 for every man, woman and child to meet those force goals every year.

In Western Europe it was an average of $11 more per person. In Belgium, as I tell those people, we are talking about an additional 520 francs from each man, woman and child every year, which is less than a quarter of what a Belgian spends on his color television set every year. So, they start pulling out their wallet.

I say, don't give it to me, tell your parliamentarians. For Germany it was going to cost them 40 marks, and United Kingdom 10 pounds a year. That is peanuts from my perspective as to what those people spend.

If they have a big family, it adds up quickly. When you take it by a census of the country, it looks overwhelming to the people of that country, particularly when they have a minority government where, like the Danes, they have to get four parties on the opposition side before they can get anything through or a coalition government which will fail if it puts too much emphasis on defense.

I go back again to this business of how can we give them some additional evidence to get them to do what needs to be done? I have been through that revolving door. I won't go through it again.

Senator **Warner**. Thank you, gentlemen. I hope you have a safe journey back.

[The questions submitted by the Senators of the Senate Armed Services Committee to be answered for the record follow:]

Questions Supplied by Senator Barry Goldwater

POMCUS

Chairman **Goldwater**. General Rogers, for the past two years, the Congress has restricted the equipping of POMCUS Sets 5 and 6 to equipment which is in excess of 70 percent of the established requirements for such equipment for the active forces and 50 percent of the established requirements for the Reserves.

Could you please tell the Committee how this restriction affects both the ability of the United States to meet its NATO commitment to ten divisions in Europe ten days after the outbreak of hostilities, and NATO's overall conventional defense capability?

General **Rogers**. The restriction of 70% AC/50% RC fill coupled with the DA decision to field four new Light Infantry Divisions impacts on similar line items for these POMCUS units. There are 67 different lines affected including such things as generators, radios, trucks and trailers. No combat vehicles are affected on the fill of Light Infantry Division versus POMCUS. Current projections indicate that this mismatch between POMCUS sets and deploying POMCUS units will not be fixed until FY94. The congressional restriction will continue to slow the fill of POMCUS and inhibit the ability to deploy these units rapidly.

Chairman **Goldwater**. How do you answer the charge of critics that the vulnerability of the POMCUS sites to early enemy attack negates the necessity to complete the program?

General **Rogers**. The POMCUS Program is a cornerstone in our ability to meet our commitment to NATO to have 10 divisions in Europe in 10 days. Without POMCUS this commitment cannot be met.

With adequate warning and mobilization, POMCUS stocks can be issued and dispersed before D-Day. In this scenario, POMCUS would not be vulnerable. The key is timely and appropriate decisions by political authorities to commence the flow of reinforcement to Europe. POMCUS unit personnel are scheduled to arrive at the front end of the reinforcement flow and will draw their equipment within 2-4 days, limiting the window of vulnerability for POMCUS. On the other hand, the alternative to POMCUS is to bring more equipment-laden ships to Europe. This would dramatically slow our reinforcement of Europe. Sinking of equipment-laden ships would probably be more catastrophic than a possibie attack on POMCUS.

POMCUS represents the next best alternative to having 10 divisions forward deployed in Europe along with sufficient combat support and combat service support.

QUESTIONS SUBMITTED BY SENATOR JOHN WARNER

NUCLEAR/CHEMICAL ISSUES

Senator **WARNER**. What would be the impact on the timing of your decision to request release of nuclear weapons if the Soviets used chemical weapons against NATO forces?

General **ROGERS**. First, the Soviet use of chemical weapons, especially against those nations (mainly on the flanks) badly equipped with chemical protection gear, could have a severe debilitating effect on our forces with the result that we could start to lose the battle sooner. This could result in an earlier request for nuclear weapons in order to retain a cohesive defense. Second, I have no suitable response to deter the enemy from using chemical weapons, and although I do not consider the Warsaw Pact use of chemicals alone as a reason to request a nuclear response, it may be the only option left to ACE especially in the face of widespread use of persistent chemical agents.

The use of persistent chemical weapons against our nuclear delivery airfields would be a significant factor in the decision for the early request for the use of nuclear weapons as it would be a positive indication that the enemy was embarking on an unrestrained attack on the allies.

Therefore, the overriding effect of the Pact use of chemical weapons will be to lessen the time between the commencement of hostilities and the time I would need to request the release of nuclear weapons. It would be wrong to assume that extensive use of chemical agents would result in an automatic request for the release of nuclear weapons. However, as long as NATO is without an adequate response in kind to Soviet use of chemicals, there is the higher risk of our need to resort to nuclear weapons.

ANTI-TACTICAL BALLISTIC MISSILE SYSTEM

Senator **WARNER**. In view of the threat posed to militarily critical NATO targets like airfields and supply depots by Soviet Theater Ballistic Missiles, should we consider developing an anti-tactical ballistic missile system?

General **ROGERS**. Not yet. We should wait until we can determine if the research on SDI provides a capability which is applicable for theater use. If it does, then West European nations must determine if the Theater System would be both mission- and cost-effective. If it would, then these nations must decide if they wish to pay for such a system. Meanwhile, we need a weapon system such as a surface-to-surface or air-to-surface missile accurate enough to attack Soviet ballistic missile sites before they launch.

CHEMICAL WARFARE

Senator **WARNER**. Recent reports suggest that our assessment of the Soviet chemical threat has changed from use on a massive scale to more selective use. Does this in any way change the requirement for a U.S. chemical retaliatory capability?

General **ROGERS**. No. The requirement for a U.S. chemical retaliatory capability in the European Theater is not based on an assumption that an enemy will employ chemicals on a massive scale. Massive use of chemicals by the Soviets/Warsaw Pact would result in rapid and severe degradation of U.S. and NATO capability to defend, probably resulting in an early requirement for nuclear response regardless of our chemical retaliatory capability.

Selective use of chemicals is also potentially devastating to NATO's defense capabilities as the attacks would be concentrated where they would do great harm. For example, if attacks were selectively concentrated on air bases, sortie generation capability of allied air forces would be drastically and quickly reduced (exercises indicate by as much as 50% in a 24 hour period). Conventional response to such chemical attacks would be ineffective because of the reduced capability of friendly forces. A decision to respond with nuclear weapons, solely because the enemy used chemicals, would be politically difficult to make.

The ineffectiveness of relying on conventional response, and the inflexibility of relying on nuclear response to selective use of chemicals by the Soviets/Warsaw Pact, lead to a requirement for a chemical retaliatory capability. To be an effective warfighting capability and therefore a credible deterrent to initiation of chemical warfare, such a capability must be able to hold the enemy at risk by a potential effective chemical response throughout the battlefield.

Senator **Warner**. Yesterday we had quite a comprehensive briefing on chemical warfare covering our defensive measures and equipment, as well as our lack of an adequate retaliatory capability. Would you give us your view of the situation and comment also on the relative capabilities of our NATO allies in this regard? Would you give us the benefit of your professional view of the potential issues and possible effects should this body choose not to authorize the binary chemical production facilities requested?

General **Rogers**. Soviet/Warsaw Pact forces hold significant military advantages in the area of chemical warfare (CW). They maintain the world's greatest offensive chemical capability, can wage large scale chemical operations, and can sustain effective operations on a chemically contaminated battlefield. NATO forces cannot sustain effective operations in a CW environment or effectively retaliate with chemical weapons to cause significant degradation of Pact capabilities.

Ability of U.S. forces to survive CW attack has improved significantly thanks to strong Congressional support for chemical defense programs. NATO Allies have also made improvements and several NATO forces are generally as well prepared to survive chemical attack as are U.S. forces. As an exception, the northern and southern flanks of Allied Command Europe are essentially unprotected. Ability of all NATO forces, including U.S. forces, to sustain operations in a chemical environment remains limited, primarily due to degrading effects of assuming a defensive posture.

The most effective method to minimize degradation of combat effectiveness caused by CW attack is to avoid the contamination. This is impractical for fixed locations (e.g., airfields), and in mobile situations, current technology limits ability to detect contamination remotely and thereby avoid entering contaminated areas.

Effective individual CW defense equipment has been provided in quantities sufficient to assure survival of well prepared troops. However, assumption of a protective posture severely degrades individual capability to perform combat and support tasks.

Although collective protection prolongs some tasks, it is effective to those normally working inside (e.g., command, control, communications, and maintenance crews) and for relief of critical combatants such as air crews.

A priority objective following CW attack is to recover quickly to a pre-attack condition. Decontamination is materiel and manpower intensive. Improvements are essential but at best, decontamination will be time consuming and therefore contribute to degradation of unit combat effectiveness.

Improved defenses are essential but alone do not guarantee sustained effective operations in a CW environment. A determined enemy with a CW delivery capability holds a significant advantage over a force with the best chemical defenses, but unable to retaliate effectively.

A credible retaliatory capability, short of nuclear response, is essential to deterrence. The key issue is whether or not NATO's current retaliatory capability is adequate. In my opinion it is not. The U.S. provides the only chemical retaliatory stocks for the Allies.

The U.S. stockpile lacks a survivable, deep-strike, persistent agent delivery system to place enemy rear area forces at risk of operating in the same degraded mode they can now force upon us with a number of effective delivery systems. Our deepstrike, persistent agent delivery systems are spraytanks which cannot be employed without unacceptable risk to delivery crews. Our chemical bombs are filled with non-persistent agent which dissipates too rapidly to seriously degrade enemy capabilities. Chemical projectiles for short range retaliation are again and, for the better part, maldeployed (only a 2-3 day supply is forward deployed in Europe).

Failure of Congress to authorize the binary programs requested would result in continuance of the critical imbalance that exists between NATO and Warsaw Pact chemical warfare capabilities. The consequences could be grave, resulting in an early requirement for NATO use of nuclear weapons. Our ultimate goal is to relieve our soldiers, sailors, and airmen of the threat of chemical warfare. Authorization of the binary program would not only provide a significant warfighting capability and thus a credible CW deterrent, but would also signal U.S. resolve with potentially beneficial efforts on chemical disarmament negotiations.

I again request the Congress to authorize the production of the binary chemical warhead for artillery (non-persistent) and for air-delivered bombs (Bigeye-persistent), and the continued research on a CW warhead for the MLRS.

NATO STANDARDIZATION OF EQUIPMENT

Senator **Warner**. In a recent report from the Secretary of Defense on the Standardization of Equipment in NATO, he indicated that one of the most critical problems is the integration of Air Defense elements with our IFF (Identification Friend or Foe) systems. Would you describe the importance of this problem from your point of view and indicate what you think we should do about it?

General **Rogers**. The fact we have to resort to an indirect identification process results in cumbersome, nonresponsive procedures and weapon identification zones, and restrictions on our beyond-visual-range (BVR) capability that take away one of the major advantages we hold over the Warsaw Pact air forces. The critical link to the entire air defense structure is the NATO Identification System (NIS) which would allow friendly aircraft greater freedom to operate over the battlefield. A system has not been selected because of disagreements among NATO nations over cost and operating frequency. The Mark XV IFF is the only acceptable solution to the U.S. due to backward compatibility with our current systems and the affordability of equipping worldwide assets. Continuing efforts are under way within the Alliance to resolve this important issue.

WARNING TIME

Senator **Warner**. Critical to our reinforcing NATO and indeed having sufficient time to deploy our forces which we have agreed to commit in an emergency is the ability of our intelligence to identify in sufficient time a Warsaw Pact intent to attack. We are dependent on sufficient warning time, not only to deploy our troops, but to draw POMCUS stocks, distribute and upload ammunition, prepare defensive positions, evacuate dependents, and many other tasks which you could enumerate far better than I. How much warning time do we really require? How confident are you that our intelligence sources are capable of providing that amount of time?

General **Rogers**. We need as much warning time as we can get. [Deleted.]

FOFA

Senator **Warner**. We have received a briefing here on the concept of the Airland Battle doctrine. I understand that you have adopted in NATO some version of this referred to as FOFA, or Follow-on Forces Attack, and that this strategy involves a heavy dependence on "smart" munitions, long range airborne radar, and ground attacks deep in the enemy's rear areas to prevent enemy "follow-on" forces from reaching the front lines after the initial attack. I'd like to hear your reaction to a quote from Colonel T. N. Dupuy (retired), who writes a column for Army magazine:

"Don't assume that our foes are stupid, and we are smart: that they will be rigid, and we shall be flexible; that we know all about how to take advantage of their doctrine, but they will be unable to take advantage of ours. Don't delude yourself. We may be inviting disaster by making the task of a Soviet breakthrough all the more easy by diverting all-too-thin enemy's forces. We may lose the war quickly, in defiance of fundamental principles and verities of war throughout history."

General **Rogers**. First, let me clarify that NATO's concept of FOFA does not involve ground attacks deep in the enemy's rear area by friendly ground forces. NATO policy does not permit this. Any attack in the enemy's rear area would be limited to conventional weapons systems only. Secondly, Soviet doctrine calls for the maintenance of the momentum of its offensive through the use of follow-on forces composed of echelons, reserve forces and Operational Maneuver Groups (OMGs). Allied Command Europe (ACE) can prevent the Warsaw Pact from maintaining the momentum of their assault by targeting these follow-on forces before they hit our General Defensive Position (GDP). Some have said that by seeking to attack the follow-on forces early in the battle we have confused our priorities and would weaken the forces fighting at the GDP. This is just not so. Our priorities for conventional enhancement contribute both to holding the lead attacking echelon at the GDP and to improving our ability to attack follow-on forces. Further, defending at the GDP and attacking follow-on forces are complementary and mutually reinforcing operations. Defense at the GDP protects our means to attack Soviet follow-on forces, and attacking in depth in order to delay, disrupt and neutralize the follow-on forces will help to keep the force ratios at the GDP manageable. In order to exploit Soviet offensive doctrine and frustrate an attack, NATO must be capable of defending at the GDP and striking Soviet follow-on forces simultaneously. By such simultaneity we seek to reinforce the NATO forces on the GDP by denying the Warsaw Pact the ability to bring overwhelming combat power to bear at the point of his choice, thereby preventing a breakthrough.

JOINT COMMUNICATION SUPPORT ELEMENT

Senator WARNER. I understand that your headquarters is responsible for maintaining and providing on request from the other CINCs (through JCS) the Joint Communication Support Element. In your view, is the JCSE adequately equipped and properly funded? Is it fully utilized by the CINCs? Are there any problems with it?

General NUTTING. As your question acknowledges, the Joint Communications Support Element is a Joint Chiefs of Staff communications resource which is administered and supported by USREDCOM. The JCSE provides tactical communications to support a joint task force (JTF) headquarters and a joint unconventional warfare task force (JUWTF) headquarters.

A phased modernization program managed and implemented by USREDCOM was begun almost five years ago to ensure that the JCSE is adequately equipped to perform the missions and functions for which it was created. This JCSE modernization program ensures adequate equipment and has been properly funded by the three military departments. We are now witnessing the fielding of modern military tactical equipment tailored to support the mission assigned by the JCS.

The JCSE is fully utilized by the JCS and the CINCs. A problem which we all face with the JCSE is how to maintain a proper balance between the unit's 24 hour capability for contingency employment and its support of readiness exercises needed to maintain the level of proficiency for combat. All JCSE assets are strictly controlled to ensure that balance between competing requirements is maintained, but the demand for the assets exceeds the current JCSE capability.

Because of the present full utilization of JCSE, the JCS have embarked on an augmentation of the capability by incorporating two Air National Guard Joint Communications Support Squadrons which will eventually enable simultaneous support of two JTF/JUWTF operations. We are confident that this augmentation, coupled with continuing equipment modernization, will satisfy JCS communications support requirements well into the future. The plan will ensure that the JCSE will be capable of performing its support mission for the unified/specified commands worldwide.

SPECIAL FORCES

Senator WARNER. General Gorman, in testimony before this committee on Wednesday, indicated that his major requirement was for special operations forces for low intensity conflict and that such forces must be adequately trained and in being. Would you comment on the current adequacy and readiness of our special operations forces?

General NUTTING. While I would not presume to comment on U.S. Southern Command requirements and capabilities, I would agree that our ability to effectively engage in what is increasingly called "low intensity conflict," to assist for example the emerging democratic movements in Central America, resides primarily in our special operations forces. In the Army, these forces include Special Forces units, Ranger units, psychological operations units, and civil affairs units. In the Navy, they include the sea-air-land teams assigned to the fleets. In the Air Force, they include units capable of providing both air lift and appropriate fire support.

So called low intensity conflict is the most prevalent form of conflict we have faced since 1945 and is likely to dominate the international environment for the rest of this century. It is, in my opinion, the most serious long term strategic issue facing the U.S. Employment of special operations forces must be effectively coordinated with parallel political, social/psychological, and economic courses of action. Low intensity conflict encompasses a multi-dimensional threat and, when U.S. interests are involved, must be met by a similar multi-dimensional response.

For the most part, [deleted] and a newly organized unit which will be ready in the near future. [Deleted.] Effective training is hindered by assigning units missions in more than one theater which prevents adequate concentration on target area.

SATELLITE CHANNEL CAPACITY

Senator WARNER. You also indicate that satellite channel capacity is inadequate to support our tactical forces in many parts of the world. Would you describe this deficiency in more detail and indicate what, in your opinion, should be done to resolve this problem?

General NUTTING. I do not recall indicating that satellite channel capacity is inadequate; [deleted]. Another problem is that low power ground terminals with low gain antennas occasionally require a further reduction in the number of channels available; however, this reduction allows favorable distribution of satellite power to ensure maintenance of good communications quality.

Some possible steps which could be taken to alleviate this problem are:

a. SHF—More efficient use of current satellite capacity could be achieved by using improved multiplexing equipment. This is one reason for the Army's decision to buy the low rate multiplexer (LRM) for its TSC-85A and TSC-93A TACSAT terminals rather than the current multiplexer which has been used widely in Army terrestrial multichannel systems. The LRM also allows the equipping of ground stations with an anti-jam capability. Additionally, use of the LRM will provide interoperability among Army, USMC, and USAF satellite terminals.

b. Demand assigned multiple access (DAMA) is a process which involves sharing of available satellite channels among the users through a time division multiplexing technique. It would help increase capacity of both UHF and SHF satellite systems while increasing the flexibility and survivability of the networks. The implementation of DAMA in TACSAT terminals is probably the most feasible mid-term solution.

c. A long-term solution to the capacity problem is to increase the number of available channels by launching more satellites.

SECURITY MISSION WITHIN UNITED STATES

Senator **Warner**. You expressed concern that we have no forces today dedicated to the security mission within the United States. You indicate that you would like our support for a small dedicated force and joint command structure to provide the framework for use during such crises. Would you describe in more detail what forces you envision and how they would be employed?

General **Nutting**. While I wish not to overstate the threat, I do believe we must acknowledge our internal vulnerability with respect to communications networks, transportation networks, and energy distribution networks. Viewed against known Soviet doctrine and visible military and paramilitary capabilities, it is only prudent to reexamine our internal security apparatus to ensure its adequacy. Local, county, state and national law enforcement agencies are responsible under conditions we call "peacetime;" it is U.S. Readiness Command's responsibility to provide disaster assistance, military support to civil defense, and react against a landed enemy force should we face situations beyond the capabilities of civil authorities under "wartime" conditions.

The forces/resources I envision involve modest planning/operating staffs and security guard forces needed now; ultimately, we may need to consider appropriately tailored reaction forces capable of either support to civil activities in emergency situations or action against specific military or paramilitary forces. Modest joint planning staffs composed of minimal active duty personnel who could be augmented as necessary by reserve personnel are needed to evaluate the threat and develop appropriate responses at unified command, subordinate unified command/Continental Army, and state levels. Depending upon a realistic assessment of threat and vulnerability, we may need to provide for security guard forces or additional security guard resources at selected facilities. These security forces might be composed of non-deploying active personnel and available reserve personnel now. Soon, I believe we will find it prudent to organize security guard forces among the reserve components—perhaps along the lines of the militia and auxiliary type forces we have raised in the past. Reaction forces may most logically be composed of reserves or militia type organizations capable of providing both combat and service support in circumstances of either unconventional attack or nuclear attack.

We propose to revitalize the existing command structure, strengthen the civil/military interface at all levels, and dedicate only minimal forces and resources—with prime reliance on reserve component sourcing. We would provide a joint chain of command from national/USREDCOM through Continental Army/subordinate unified command, to state/joint task force levels of responsibility. Small active component cells tailored to specific missions could be supplemented as needed by reserve components to provide continuity for peacetime planning and wartime execution of military emergency response. In all cases possible, we would want local authorities and personnel to retain responsibility in their own immediate area. Such a structure would permit de-centralized application of military resources for support of civil defense or centralized execution of any specific land defense mission in the continental United States.

Question Supplied by Senator Jeremiah Denton

TERRORIST THREAT TO GLCM/PERSHING II

Senator **Denton**. General Rogers, when I visited in Germany in 1983, I was particularly concerned about security of our nuclear warheads and delivery systems (particularly GLCM and Pershing) against the terrorist threat. Can you give us your frank assessment of where we now stand, the severity of the threat, and further measures that should or must be taken?

General ROGERS. Of the [deleted] nuclear storage sites in ACE, we have completed the Long Range Security Program Civil Works upgrade at [deleted] sites and all the remaining sites are under contract. IDS is installed at [deleted] sites and under NATO contract for [deleted] other sites. [Deleted] sites will [deleted] as they will close prior to [deleted] beneficial IDS use.

All GLCM sites and Pershing II nuclear storage/QRA sites have received or are being built (GLCM) to the latest U.S. and NATO standards to include IDS. We have not, and will not deploy the new systems into locations which do not meet all surety criteria.

The postulated threat [deleted] however, I have full confidence the military members, both U.S. and user nations, are fully capable of defending these sites. We intend to enhance security of our [deleted] further through the use of Weapon's Access Delay Systems (WADS) at selected USAREUR storage sites and through the use of the Air Forces' storage vault at air bases. These systems assure us of [deleted] minutes delay time. The USAREUR program is ongoing, and the USAFE program is to be initiated in 1986.

QUESTIONS SUBMITTED BY SENATOR SAM NUNN

DEPLOYMENT PLANNING

Senator NUNN. How close are we today to being able to deploy the 10 U.S. divisions to NATO in 10 days?

General ROGERS. Current U.S. planning closes the M+10 essential force combat force by [deleted] with CS/CSS forces arriving by [deleted].

Senator NUNN. What are the principal constraints that keep us from meeting this commitment?

General ROGERS. There are several interrelated constraints that prevent the United States from achieving 10 divisions in 10 days.

the Army Divisions compete with higher priority forces, such as Air Force squadrons and M-Day shortfall, for the limited available airlift.

Ten divisions in 10 days presupposes fill of 6 POMCUS sets. Fill completion estimated for 1994. Strategic airlift is insufficient to move the POMCUS shortfall and some POMCUS is non-air-transportable and must deploy by sea. Sealift cannot meet the 10 day requirement.

Senator NUNN. How long would it take us today to fully deploy the 3 U.S. Divisions committed to NORTHAG? The entire ten division force and the early tactical aircraft reinforcements?

General ROGERS. Falling behind higher priority force movements, the 3 U.S. Divisions to NORTHAG forces arrive approximately [deleted] and the CS/CSS approximately [deleted]. The entire 10 division force moving by air and sea, and the early tactical aircraft moving by air arrive in theater approximately [deleted].

AMMUNITION WAR RESERVE STOCKS

Senator NUNN. General Rogers, the Final Communique issued after the December NATO Ministerial meeting acknowledged critical deficiencies in NATO's ammunition war reserve stocks. According to the Communique, the NATO Ministers "are determined to make a special effort to make good these shortfalls and have therefore undertaken to improve holdings in a selected number of key munitions." In general, how will the December Ministerial agreements change the overall picture of NATO war reserve stocks as reflected in the Senior NATO Logistician's Report over the next several years? Can you point to specific examples of countries that have committed to significant increases in their munitions stocks?

General ROGERS. Belgium has officially advised they are planning to increase their holdings of 155mm ammo by 1989. Canada's and the UK's MOD in their most recent Defense Planning Questionnaire (DPQ) response also set forth the timetable for their increasing ammo holdings.

COMBAT SUPPORT

Senator NUNN. General Rogers, there have been proposals discussed in the Congress to reduce active duty support forces by 10%. If USAREUR's support forces were reduced by 10% and these personnel spaces were reassigned to combat functions, what affect would this have on USAREUR's overall capability?

General ROGERS. The combat to combat support ratio for forward deployed forces is now approximately 85:35. The combat support proportion is barely adequate for peacetime operations and constitutes maximum acceptable risk for transition to war. The first M+10 shortfall arrival package is designed to improve the ratio to 56:44 and is considered marginally adequate to sustain forces in combat. Present capabilities to support forward deployed wartime requirements are: [Deleted.] The impact of a ten percent reduction in combat support units is difficult to quantify without detailed study. Force structure and manpower adjustments would have to consider not only loss of combat support available but also simultaneous increase in combat forces to be supported. Increasing combat forces would not by itself improve readiness or combat capabilities. The general assessment is that any reduction of combat support capability would have serious negative impact on USAREUR's ability to sustain peacetime readiness and would create an unacceptable risk for transitioning to war. In other words, such a 10% reduction would further exacerbate a major deficiency which already exists.

FORWARD MARITIME STRATEGY

Senator NUNN. How comfortable are you with the Navy's forward maritime strategy?

General ROGERS. I am fairly comfortable with the Navy's maritime strategy, which might more accurately be termed the maritime contribution to theater strategy. It is consistent with our principle of defending NATO territory and lines of communication as far forward as possible. U.S. and Allied navies will be participating in the collective defense of NATO's interests.

AIRCRAFT CARRIER BATTLE GROUPS

Senator NUNN. Do you think that sailing multiple aircraft carrier battle groups in fairly close proximity to Soviet operational areas contiguous to our allies' shores (i.e. Norway) is a viable option?

General ROGERS. The operation of multiple carrier battle groups in the defense of the NATO flanks is an essential part of the strategy to defend Europe and the SLOCs thereto and therein. How far forward they can be employed depends upon the circumstances and force ratios. It is not intended to send forces to areas in which they cannot survive or operate effectively.

FORWARD MARITIME STRATEGY

Senator NUNN. Do you think the Navy can realistically expect to perform successfully the mission they are advertising they will execute in the course of implementing the forward maritime strategy?

General ROGERS. Yes, with the assistance of allied navies.

INF DEPLOYMENT

Senator NUNN. What effect is the reluctance of some of the INF host nations having on the overall deployment schedule? Do you believe that other countries will also slow down the deployment schedule or even abandon certain deployments as a result of some of the political foot dragging that has occurred to date in deploying the INF missiles on schedule?

General ROGERS. In the absence of a negotiated arms agreement with the Soviets, the deployment of GLCM and Pershing II missiles in Europe has proceeded in accordance with the 1979 dual track decision. Deployment has begun in the United Kingdom, Italy, Germany and, most recently, in Belgium. These deployments have proceeded on schedule despite active national peace movements and a Soviet campaign to prevent deployment. We do expect that all the INF deploying nations will implement fully that agreement. Belgium's recent reaffirmation of its commitment to the Alliance decision gave an important boost to NATO solidarity. Four of the five INF host nations have now deployed INF missiles on their soil, on schedule. The fifth nation, The Netherlands, stated last year that it would deploy its share of missiles if certain conditions were met. The Government of The Netherlands assured its NATO allies that given an affirmation deployment decision, all of its missiles will be deployed by 1988, the end deployment date agreed by NATO.

STAGGERED READINESS OF U.S.-BASED FORCES

Senator NUNN. General Nutting, as the defense budget levels off over the next few years we are going to have to find ways to reduce costs across the board in investment, in readiness, and even in personnel. Wouldn't it make sense to lower the near-term readiness of some of our U.S.-based Army divisions and Air Force wings that would not be immediately deployed overseas in a national crisis, especially since we lack the lift capability to deploy all of these forces overseas quickly anyway? In what ways could this be done—reduced operating tempos, slightly lowered manning in non-critical skills? In your view, how much could these measures save?

General NUTTING. As discussed earlier, I believe that the services are already organized along the concept of "staggered readiness" which you describe. The Defense Guidance sets forth priorities in applying resources to the maintenance of readiness. [Deleted.]

Lowering the near-term readiness of U.S.-based Army divisions and Air Force wings that would not be immediately deployed overseas in a national crisis is another way of describing the current system used by the Services to maintain "staggered readiness." The Army, for example, uses the Department of the Army Master Priority List (DAMPL) to establish a "first to fight—first equipped" priority list. Units are now rank ordered based primarily on their sequence of deployment and priorities are established for equipment and personnel distribution systems. Modernization generally follows the same philosophy, but with added management for special fielding considerations. In addition, authorized levels of organization (ALOs) have been established for Army units to manage distribution of constrained resources. The unit ALO is based on its mission and budget allocations. It expresses military personnel authorizations as percent of required unit structure; unit equipment fill is usually 100 percent for the top three ALOs.

All the services use similar systems to ensure best use of dollars and resources. There are practical limits to the linking of ALO, DAMPL, and time phased force deployments. These limits arise from refinement of plans, changes in units, and changes in lift availability. Necessary multi-mission tasking of units is a further complication. Priorities must consider all missions and likelihood of employment. We are effecting savings through use of "staggered readiness" at present. If we further reduce the readiness of late deploying units, we would have difficulty in preparing them for deployment in a combat ready state.

CS/CSS RATIOS

Senator NUNN. General Rogers, last year's (July 1984) report on the combat-to-support ratio of United States forces in Europe pointed out that the combat/support ratio of the U.S. Army forces in Europe in fiscal year 1984 and fiscal year 1985 is the lowest since fiscal year 1975. Isn't this trend reversing the progress of the last 10 years in increasing the immediate combat capability of U.S. Army forces in Europe? How can you argue for more combat service support units for Europe in light of this trend?

General ROGERS. The combat-to-combat support ratio in Europe is unbalanced and places our combat forces at risk. The M-Day shortfall package of combat support/combat service support (CS/CSS) units is designed to provide minimum necessary U.S. CS/CSS units to support forward deployed combat units in combat and organize Host Nation support from the civil sector. CS/CSS units in the M+10 essential force are designed to provide U.S. units with 17 percent of rear combat zone/communications zone (RCZ/COMMZ) truck transportation requirements, and 40 percent of COMMZ POL storage requirements. All services and remainder of support requirements must come from Host Nation support. M-Day shortfall units will perform 65 percent of ammunition capability and 82 percent of truck transportation for forward deployed units.

EUCOM AREA OF RESPONSIBILITY

Senator NUNN. Given the experience of our U.S. forces in Lebanon, should we be considering redrawing boundaries of EUCOM to include only NATO, excluding the Middle East from your command, and allowing EUCOM to focus all its efforts on deterring conflict in NATO?

General ROGERS. No. USEUCOM's general area of responsibility (AOR) for the conduct of normal operations, is as follows: [Deleted] (Unified Command Plan, 1983).

The Mediterranean littoral consists of those countries that border the Mediterranean Sea (Med), and includes only three Middle East countries: Israel, Lebanon and

Syria. The Med in effect forms the southern flank of NATO and contains critical lines of communication (LOC) that join three continents and two ocean areas. The USSR maintains a sizable naval force in the Med and Soviet control of the area would endanger U.S. and Allied air and naval movement in adjacent land and water regions. Ensuring the uninterrupted flow of oil through the Med and that none of the key states fall under Soviet influence are principal objectives for both the U.S. and NATO.

In crisis situations in the Mediterranean littoral, USCINCEUR's forces, because of their proximity to the area and availability, would probably be those initially used. This area's strategic importance and ties to NATO require that U.S. contingencies in the region be coordinated with NATO. USEUCOM's close working relationship and experience with NATO enhances the negotiation, coordination, and cooperation required to plan and conduct activities in areas external to NATO boundaries, as was demonstrated by the reaction and functioning of the multi-national forces in Lebanon. This close relationship evolves from the U.S./NATO dual command structure (whereby CINCEUR is NATO's SACEUR; CINCUSAREUR is NATO's COMCENTAG; CINCUSNAVEUR is NATO's CINCSOUTH; and CINCUSAFE is NATO's COMAAFCE), which permits CINCEUR and the HQ USEUCOM staff to manage U.S. responsibilities in the EUCOM AOR and SACEUR and his Allied Command staff to focus on the overall allied defense of NATO.

Changes to Unified Command AOR's are made to improve management, clarify lines of authority, simplify Headquarters structures and create peacetime postures that enhance transition from peace to war or other crisis contingencies. Because of the strategic importance of the Mediterranean littoral to NATO and the U.S., and the importance of maintaining unity of command, regional integrity and natural LOCs, clear lines of authority and smoother peace to war transition capabilities, it is not recommended that USEUCOM's AOR be limited to NATO boundaries.

PERSONNEL SUSTAINABILITY

Senator NUNN. General Rogers, we still do not have an adequate source of pretrained individual manpower to sustain combat operations in a NATO war. A recent Defense Department report, (FY 1986 Force Readiness Report) points out that the Army would face an aggregate shortage of [deleted]. The combined shortage in just combat and medical skills would be even greater. In your view, how serious is this shortfall in personnel sustainability? Is it as serious as some of our material sustainability shortages? Should we continue to put major equipment end items into WRS storage if we are going to be personnel-limited?

General ROGERS. [deleted.]

A general assessment of relative seriousness of personnel and material shortages is difficult. War reserve levels of material stockages vary significantly by category of supply and for critical items within categories. Both types of shortages have significant impact on USAREUR's ability to sustain the essential force in combat. A surplus of equipment in terms of available operators may exist [deleted] however, the constraints on personnel can be overcome in less time than that which is required to obtain additional major items of equipment. With the longer lead time required to acquire equipment, it should have priority in the planning process.

Improvement of WRS of major equipment should continue regardless of the limitation on personnel for reasons stated above. [deleted.]

NORTHAG GROUND FORCES

Senator NUNN. General Rogers, as you know I am a strong backer of the effort to increase NATO's capability in Northern Army Group (NORTHAG.) But, looking at the defense problem realistically, aren't we ultimately going to need more stationed ground forces in NORTHAG, and shouldn't they be highly mobile and heavily armored? Aren't those the kind of forces stationed in Central Army Group (CENTAG) in abundance? Should we be looking ultimately to a reshaping of the various corps areas and national responsibilities?

General ROGERS. We need more highly mobile and heavily armored forces stationed in NORTHAG in peacetime, but we do not have such forces in abundance in CENTAG as the question postulates. [Deleted.]

Any analysis of combat potential must also evaluate the terrain. On the surface, one has reason to believe that the WP would deploy the greater portion of his tank heavy armies against NORTHAG which has wide stretches of relatively open and flat terrain rather than against CENTAG which has rolling to hilly terrain with much higher forestation. However, the defense area in NORTHAG is more highly populated and has more built-up areas than in CENTAG. It should be noted that

CENTAG is continuously becoming more usable for mechanized forces by the developing road networks both in wooded areas and in the 3-5 historical approaches to the west. In other words, both areas require mobile/heavy armor formations—NORTHAG certainly more. [Deleted.]

In summary, it is clear that there are no forces stationed in CENTAG which we could withdraw and station in peacetime in NORTHAG without dangerously jeopardizing the defense in southern Germany. [Deleted.]

LIGHT INFANTRY DIVISION CONCEPT

Senator NUNN. Would you, please, give us your judgment as to how useful the new U.S. Army Light Division will be in a NATO context? Would you prefer armored divisions or light divisions as early reinforcements?

General ROGERS. Although the Light Infantry Division is designed for rapid deployment for world-wide requirements, its employment capabilities in the European theater are more limited. In NATO, where the mission includes both deterrence and ability to fight, the deterrent posture must be supported by strong conventional and nuclear forces. If deterrence fails, conventional land forces must have the capability to react rapidly with sufficient combat power to fight a strong defensive action. With the reduction in organic combat power and capability for sustained operations, the Light Infantry Division has reduced utility in Europe. The problem of employment is further complicated by command and control, and operational problems associated with the need to augment the division with additional combat units and transportation from limited Corps or theater assets to support commitment into combat. In a heavy armored and mechanized environment, posed by the Soviet and Warsaw Pact threat, the Light Infantry Division has reduced employment options.

WARTIME MEDICAL CARE

Senator NUNN. General Rogers, do our current assessments of U.S. capability to provide wartime medical care include the use of any civilian medical care facilities within Europe?

General ROGERS. Yes. Our current assessments of U.S. wartime medical capability include the temporary use of civilian medical facilities in Belgium, The Netherlands, and the United Kingdom.

Senator NUNN. Do we have any plans or agreements with NATO countries to use their civilian hospitals to treat U.S. casualties in the event of war?

General ROGERS. Yes. We routinely include the use of civilian hospitals for the treatment of U.S. casualties in wartime as one of the principal objectives of our initial negotiations with NATO nations for host nation medical support. Thus far, we have firm agreements with Belgium and The Netherlands to use their civilian hospitals on an interim basis in wartime until the U.S. national medical support structure is established. These agreements provide limited inpatient and outpatient services in either civilian or military medical facilities and apply only to U.S. forces stationed in or transiting the host nations. We are also developing a plan with the United Kingdom whereby up to 39,699 staffed acute care civilian beds would be made available for the treatment of U.S. casualties during the first 60 days of a European conflict. This agreement promises to substantially enhance our wartime medical capability, albeit on a temporary basis, until our own theater hospital structure is fully activated.

Senator NUNN. Couldn't we reduce our own investment in deployable hospitals if we had such agreements to use European hospitals to treat U.S. casualties in the event of war?

General ROGERS. Based on our experience with medical host nation support negotiations, I do not believe we can effectively reduce our investment in deployable hospitals. The agreements we have achieved thus far provide for medical support on an interim basis only. We do not have the prospect of obtaining direct medical support in wartime on a more permanent basis from any of the European nations at this time. Moreover, there is a general feeling among our allies that we are asking them to share very precious and scarce resources which will be inadequate to meet their own medical needs in wartime. On the other hand, our wartime medical shortfalls are substantial and must be satisfied as quickly as possible if we are to be ready to sustain medically our combat forces. Therefore, for the foreseeable future I see no practical alternative to procuring the deployable medical assets which the Department of Defense has included in its budget.

MUNITIONS

Senator NUNN. General Rogers, I would like to ask a few questions about some of the specific information in the Senior NATO Logistician's Report on munitions. The table at Appendix 18 compares the current and planned munitions stocks for 3 critical representative munitions: 155mm Howitzer, Sidewinder, and torpedoes of all types. According to this table, Allied Command Europe will have a [deleted] in 1989. How serious is this shortfall? Does this fall into the category of a war stopper?

General **Rogers**. According to the table referred to, the shortfall of 155mm munitions in 1989 is actually [deleted]. Additionally, phrasing it in such a way may lead to confusion. Another way to describe 155mm holdings using the same figures:

ACE total holdings against Stockpile Guidance, [deleted]. On further examination of 1984 DPQ responses, [deleted].

Artillery is an important aspect of the combined arms battle, providing the ability to inflict long range (18 km) damage against the enemy. If this ability diminishes, other long range assets, notably air power, must be misemployed and also unduly attritted. The loss of artillery unbalances our ability to defend ourself.

[Deleted.]

MUNITIONS STOCKS

Senator **Nunn**. General Rogers, the comparison of current and planned munitions stocks for the 3 critical, representative munitions at appendix 18 specifically excludes U.S. munitions stocks in Europe held in excess of 30 days. What would the shortfalls in these three munitions types look like if all U.S. NATO stocks were factored in? Isn't this what the NATO allies are counting on after all?

General **Rogers**. [Deleted.]

There are limited provisions for the Allies to obtain some of our stocks. Conversely we may obtain part of theirs too. However, there are NATO Mutual Support Act restrictions on the types of munitions, their quantities, and the situation under which they may be obtained. We are only stocking to supply our forces in consonance with Department of Defense and service directives.

WAR RESERVE MUNITIONS

Senator **Nunn**. General Rogers, the U.S. Navy and U.S. Air Force are programming to reach [deleted] of supply of war reserve munitions in NATO, and the Army is programming to reach [deleted] of supply. Why are we programming to reach munitions sustainability levels [deleted].

General **Rogers**. The U.S. forces program their sustainability based on the Defense Guidance. The planning factors for U.S. forces support both the Defense Guidance and NATO programming objectives. "Sustainability" does not mean we should last a month, two months, or even a year. It means we must sustain our forces throughout the conventional conflict. Sustainment is made up of several factors: prepositioned war reserve materiel, war reserve materiel, the production line, and the industrial base. What we are talking about when we say we must store [deleted] ammunition in NATO is that it takes that level of prepositioned war reserve ammunition in combination with the other factors to provide the sustainment we need in a conventional conflict with the Warsaw Pact. The most critical, initial part of sustainability is our prepositioned stockage. If we don't have that, the other parts are more critical. This will lead to increased emphasis on the already strained transportation system and a currently inadequate production base. On the other hand, the NATO planning factor [deleted] is the result of analyzing and agreeing to the minimum requirement for all NATO nations. Each nations' war reserve stocks should be at levels necessary to sustain a conventional conflict. Though the NATO planning factor is [deleted] in fact each nations' requirement is somewhat different based on the ability of their production base to expand, stockpiles not committed to NATO, level of the warm production base, and length of supply lines. These determine the days of supply needed initially to sustain a conventional war effort.

MUNITIONS STOCKS

Senator **Nunn**. General Rogers, what sense does it make for the United States to be purchasing up to [deleted] supply of munitions when [deleted].

General **Rogers**. We need that level of munitions to provide adequate prepositioned stocks for our forces until lines of communication can be established and U.S. forces can be supported from CONUS. It has the additional benefit of setting a positive example for our allies. It demonstrates our commitment to the alliance that conventional sustainability is what we want. We need the capability which offers us a reasonable prospect of being able to meet and defend a Warsaw Pact attack at the conventional level. If the alliance does not have sufficient conventional sustainability, it faces an escalation to nuclear confrontation. No one wants that.

WAR RESERVE MUNITIONS STOCKS

Senator **Nunn**. In effect, aren't we really subsidizing our allies unwillingness to meet their commitment to build [deleted] war reserve munitions stocks?

General **Rogers**. No. There are provisions under the NATO Mutual Support Act (NMSA) that allow reallocation of only very limited numbers and types of munitions under emergency-in-war conditions. We are not subsidizing out allies. What we are doing is repositioning inadequate prepositioned war reserve munitions to support U.S. forces. Further, the NMSA really makes it impractical for NATO countries to depend on U.S. stocks.

POMCUS

Senator **Nunn**. How much of the current closure time for the 10-division M-Day force is due to POMCUS shortfalls? How much is due to other equipment not currently authorized for POMCUS and what is the dollar value of that equipment?

General **Rogers**. POMCUS shortfall equates to approximately [deleted].

With regard to equipment not authorized for POMCUS, this equipment is not authorized for POMCUS because it is impractical or undesirable to store. The Army categorizes non-POMCUS equipment into three groups: to accompany troops (TAT), not authorized POMCUS deferred (NAP-D), and not authorized POMCUS (NAP).

TAT equipment is equipment such as a soldier's individual weapon and field gear and other equipment the unit needs to sustain itself during the move. This equipment is easily transported and keeps our soldiers armed with their individual weapons during the unit move. We should not store this equipment.

NAP-D equipment refers to equipment not critical to warfighting capabilities and includes such things as band equipment. It is undesirable to store this, nor would critical sealift or airlift assets be used to move it into theater. Only much later after there is an excess capacity in theater would such items be considered for movement.

NAP equipment is equipment that is critical to warfighting and includes such things as aviation assets, air defense assets and electronic equipment. This equipment is impractical to store. It requires extensive maintenance and is subject to frequent upgrade as a result of high technologies used in these areas. NAP equipment will receive priority lift in order to close as the POMCUS unit draws its POMCUS stocks and prepares to move into its battle position.

Equipment not authorized POMCUS does not impact on the POMCUS shortfall and the $10 billion estimate for POMCUS includes no double counting of costs for this equipment.

Questions Submitted by Senator Carl Levin

COMBAT READINESS

Senator **Levin**. You have been outspoken about the high priority you place on maintaining and improving day-to-day combat readiness of your forces, as well as improving their sustainability. This budget request will be cut. Would you agree that we should minimize any reductions in the O&M combat readiness, and sustainability accounts, and that these accounts should be the "last" cut, if at all, and not the "first" cut?

General **Nutting**. I am aware of the great and necessary efforts by the services—in performance of their lawful mission to organize, train, equip, and maintain our forces—to ensure balance between readiness, sustainability, modernization, and force structure improvements. Theirs is an essential, though not easy, task. Nevertheless, in view of the relatively limited resources available and from the perspective of the combatant command structure, I believe that O&M combat readiness and sustainability accounts should not be cut. Even considering them for a "last" cut is counterproductive. Levels of funding in these accounts are not now sufficient to overcome the shortfalls; cutting even further will compound the problem in the outyears.

CRITICAL SHORTFALLS IN READINESS

Senator **Levin**. In priority order, what are your most critical shortfalls in readiness and sustainability of U.S. forces in your command? If we were to add funds to the 1986 Defense budget, what would be your personal, professional prioritized recommendations as to how much and in what top five categories which could be executed in that fiscal year?

General **Nutting**. Among my top priority USREDCOM/JDA missions are the security of North America, joint readiness and force interoperability, and joint deployment. With regard to the security of North America, we must improve our military capability to respond in crises; we need additional personnel to make up planning staffs and security guard forces. For joint readiness/interoperability, a continued viable joint training program is essential, including a full schedule of joint readiness exercises and supporting systems, such as an automated joint exercise support system (JESS) and a joint operational interface simulation training system (JOISTS). Joint deployment is a crucial requirement in the successful implementation of our military strategy and, thus, requires specific emphasis on upgrading our strategic mobility resources and worldwide prepositioning of supplies and equipment.

The most critical shortfalls in readiness and sustainability of USREDCOM forces are, in order of priority: (1) Army personnel, particularly combat arms noncommissioned officers, and unit equipment, plus Air Force War Readiness Spares Kits, supply stocks, spare parts, and support equipment for modernized weapons systems; (2) communications equipment, both strategic and tactical, and ECM/ECCM systems; (3) munitions; (4) chemical warfare defense equipment; and (5) medical equipment.

Sustainment of our combat units is dependent upon combat service support organizations of which approximately seventy percent are within the reserve components. To ensure rapidly deployable logistic support for our combat forces, we must retain a viable, active support base. Therefore, migration of logistic units into the reserve structure must be closely controlled. Concomitantly, our reserve force support elements must be maintained in a high state of training and materiel readiness to ensure a deployment capability commensurate with the combat units they will sustain.

If additional funds were to be added to the fiscal year 1986 Defense budget, I would recommend they be applied in the priorities above in a balanced manner.

CRITICAL READINESS DEFICIENCIES

Senator LEVIN. What are the most critical readiness deficiencies in each of our allies' military forces, by country and in priority order, in your command area?

General NUTTING. My principal area of responsibility is the land area of the continental United States, including Alaska. Within that area I am responsible for military support of civil defense in "wartime" and land defense should we face conditions beyond the capability of local authorities. In conjunction with counterpart forces in Canada, I am responsible for military security of North America, less Mexico. Canada, as an ally, shares planning responsibility with USREDCOM for the U.S.-Canada Land Operations Plan; however, I do not have command of allied forces. Canada's Mobile Command is dedicated to homeland defense and is generally well configured and prepared. The U.S. has no similarly dedicated forces. [Deleted.]

QUESTIONS SUBMITTED BY SENATOR EDWARD M. KENNEDY

NUCLEAR ISSUES

Senator KENNEDY. Have you already made your specific recommendations on how the NATO decision to withdraw 1,400 nuclear warheads from Europe should be implemented? Do you consider deployment of modernized 155mm and 8-inch nuclear artillery shells to be necessary if NATO is to proceed with the withdrawal of these warheads?

General ROGERS. I will present my plans for the reduction to 4,600 warheads to Ministers at the Luxembourg NPG meeting at the end of this month. Until I have reported to Ministers, I do not wish to divulge the numbers or types of warheads I plan to retain or request for the stockpile.

155MM/8-IN ARTILLERY

Senator KENNEDY. Have the governments of the Alliance officially agreed to the replacement of the current 155mm and 8-inch shells with modernized shells? Do you anticipate public opposition to this planned modernization?

General ROGERS. The governments of the Alliance have not been officially approached with an offer to replace the current 155mm and 8-inch rounds with modernized rounds. However, at the Montebello NPG meeting our Allies did support the requirement for modern non-enhanced radiation artillery rounds to replace the current rounds. If a request is made to replace current with modernized warheads, I do not believe that public opposition to this replacement will be any greater than whatever current public opposition exists over nuclear weapons in general.

8-IN ARTILLERY

Senator **Kennedy**. Will 8-inch shells be produced and deployed in a non-enhanced radiation version?

General **Rogers**. Yes. A new non-enhanced radiation 8-inch nuclear artillery shell is available today. After consultation with the allies, we plan to deploy these new rounds to the European theater.

155MM ARTILLERY SHELL

Senator **Kennedy**. [Deleted.]

General **Rogers**. [Deleted.]

DEMOLITION MUNITIONS

Senator **Kennedy**. Will atomic demolition munitions remain in Europe following the Montebello reductions?

General **Rogers**. I will answer this question in my response to the Montebello decision at the Luxembourg NPG meeting later this month.

MLRS

Senator **Kennedy**. Do you see a need to deploy a longer-range replacement for the dual-capable Lance missile to enhance the ability of NATO's ground forces to attack Pact second echelon forces without relying on air support? Would a longer-range version of the Multiple Launch Rocket System be appropriate for this mission?

General **Rogers**. There is a requirement for a longer-range missile system for conventional attack of Warsaw Pact follow-on forces. However, this does not necessarily have to be a replacement for Lance; it could be a version of the Multiple Launch Rocket System or some other system.

LONG-RANGE STANDOFF MISSILE

Senator **Kennedy**. What is the status of the proposed Long-Range Standoff Missile for attack of Warsaw Pact airfields?

General **Rogers**. NATO has a Long-Range Standoff Missile (LRSOM) Study Group looking into the technical feasibility aspects of the missile.

AIRLAND BATTLE

Senator **Kennedy**. You have stated that certain aspects of Airland Battle do not apply to the European theater. Which aspects of Airland Battle are not acceptable for operations in defense of NATO?

General **Rogers**. We do not plan for the integrated use of conventional, nuclear and chemical weapons in Allied Command Europe (ACE). We make a clear distinction between conventional and mass destruction weapons. Any use by the Alliance of either chemical or nuclear weapons would always be in accordance with release procedures approved by alliance political authorities. We will not engage in preemptive strikes. NATO is a defensive alliance and as such will never fire the first shot. Contrary to popular perception, we will not attack across our borders with ground forces heading deep into the enemy's rear area. We will, however, use the counterattack—the essence of a viable defense—to restore our borders.

AIRLAND BATTLE/REFORGER

Senator **Kennedy**. Were Airland Battle tactics practiced during the Reforger exercise?

General **Rogers**. During Reforger exercises, tactics practiced support NATO strategy. Those portions of that strategy conceptually akin to Airland Battle have been practiced.

Due to exercise area constraints (Buffer Zone and ADIZ) along the inner-German border, limiting battlefield depth, second echelon attack or follow-on force attack can't be extensively practiced.

Close Air Support and Battlefield Air Interdiction have been practiced by NATO and U.S. forces.

FOFA

Senator **Kennedy**. What additional systems will be needed to carry out Follow-On Forces Attack? What have been the results of consultation within the alliance on practical measures to implement FOFA?

General **Rogers**. The systems that are needed to support FOFA are Precision Location Strike System (PLSS); Joint Surveillance Targeting Acquisition Radar System (JSTARS); Joint Tactical Missile System (JTACMS) or service unique variant; improved precision guided munitions and submunitions; and improved intelligence fusion centers with redundant connectivity.

Allies have agreed with FOFA concept. Within budgetary constraints each member nation is making gains in support of the concept. New or updated aircraft are being integrated into the inventories of all member countries (Tornado or F-16). Development of candidate solutions to munitions requirements are being developed and pursued. Full support to communication intelligence collection and fusion lines of connectivity to decision nodes are a high priority throughout the Alliance.

NIKE HERCULES

Senator **Kennedy**. How soon will all Nike Hercules air defense missiles be withdrawn?

General **Rogers**. A schedule exists which is dependent on nations purchasing conventional air defense systems to replace Nike Hercules to ensure no degradations to our air defense posture. [Deleted.]

HONEST JOHN

Senator **Kennedy**. The Honest John rockets deployed in Greece and Turkey are widely regarded as obsolete, but they and their accompanying U.S.-controlled nuclear warheads remain as expressions of the American commitment to defend the southern flank of NATO. What would be a reasonable solution to the problem of replacing or getting rid of these obsolete weapons?

General **Rogers**. [Deleted.] My response to ministers at the Luxembourg NPG will provide specific suggestions on the requirements for both countries to ensure an adequate deterrent posture.

ATBM

Senator **Kennedy**. How much military benefit could be gained through deployment of an anti-tactical ballistic missile in Europe? Is there any real possibility of developing an effective ATBM system in the next few years? Would you favor deployment of such a system? Would such a system be acceptable to other NATO governments?

General **Rogers**. An anti-tactical ballistic missile capability may be needed to counter the Soviet missile threat. Currently there is no system that provides significant antitactical ballistic missile capability. However, some noted experts claim that the research related to SDI will also provide a theater defense capability if Western Europe wishes to deploy it. But much more information is required before we can comment upon the possibilities for deployment to Europe and allied acceptance of this system.

NUCLEAR ISSUES

Senator **Kennedy**. What measures is ACE taking to improve and streamline the arrangements for nuclear release consultations in a crisis, and to ensure the safety and survivability of nuclear forces during a conflict?

General **Rogers**. The procedures for nuclear consultation are contained in the Tri-MNC Nuclear Weapons Release Procedures (NWRP) document. Allied Command Europe (ACE) constantly reviews these procedures and submits amendments as necessary. The procedures for obtaining inputs and target nominations from major subordinate commands (MSCs) have been much streamlined over the past two years. There is, of course, a limit to the streamlining that can be achieved in any dealings with the DPC as it is important that they receive adequate information on which to base their consultation. These procedures are practiced ACE-wide annually in Exercise Able Archer, and are practiced NATO-wide with full political involvement every other year in Exercise WINTEX-CIMEX.

ACE provides input to two NATO Groups, the High Level Group (HLG) and the Senior Level Weapon Protection Group, both of which are under remit to the NPG

Ministers to make recommendations on the surety, safety and survivability of our nuclear weapons.

The most effective measure for ensuring survivability is the timely decision by NATO political authorities to disperse the warheads from their storage sites. Nuclear bombs on our airfields can be dispersed on-base; we have proposed the building of weapons storage vaults in the floors of our hardened aircraft shelters. These same aircraft shelters provide a high degree of protection to our dual capable aircraft against conventional attack while they are still on the ground. We are currently considering the introduction of a "Secure and Survivable Trailer" for the transport and forward deployment of battlefield warheads. In order to obtain more redundancy in artillery delivery assets, we are requesting the nations to certify all of their 155mm and 8 inch tubes. The hardening of selected storage sites is also being examined.

8-IN/155MM ARTILLERY

Senator **Kennedy**. Why were the 8-inch artillery systems removed from the division and placed under corps command? Is there a connection between the reorganization of the artillery and the need to retain both 155mm and 8-inch nuclear capable artillery?

General **Rogers**. The 8-inch system is still with armored and mechanized infantry divisions. There is a directive from the Under Secretary of the Army and Chief of Staff of the Army to remove 8-inch systems from the divisions, but that is still 3 to 4 years away from complete implementation. This is part of the Army reorganization program (designed to make heavy division comparable with Division 86 concept and reduce personnel from 20,000 to 16,000). The 8-inch system will become part of Corps Artillery which will provide reinforcing fires to division.

No connection. Both systems are nuclear capable and intent is to have diversity of weapons and capability to confront enemy.

Senator **Kennedy**. Isn't the range of the 155mm and 8-inch artillery essentially equivalent? Are there any significant differences in the reliability and responsiveness of the 155mm and 8-inch systems?

General **Rogers**. Both the 155mm rocket assisted projectile (RAP) round and the 8-inch, with charge 9, have ranges of about 30km, however, the difference is in the capability of the warhead.

Although, both systems are extremely reliable and responsive, the 155mm system has a higher rate of sustained fire based upon a lighter round of 93 lbs vs 200 lbs. The 8-inch system, however, is more accurate.

NUCLEAR WARHEADS

Senator **Kennedy**. Were any nuclear warheads physically withdrawn from Europe in 1980? In 1981? In 1982? In 1983? In 1984?

General **Rogers**. [Deleted.]

Senator **Kennedy**. Have obsolete nuclear warheads been retained in Europe pending results of Montebello-related studies?

General **Rogers**. No.

GLCM

Senator **Kennedy**. Are there any plans or preparations for reloading ground-launched cruise missile launchers? What would be the feasibility of reloading the GLCMs?

General **Rogers**. In accordance with the 1979 dual-track decision, 464 ground-launched cruise missiles and warheads will be deployed to Europe lacking an arms control agreement. While it is feasible to reload GLCM launchers, there are no plans or preparations to deploy additional missiles.

PERSHING II

Senator **Kennedy**. Will there be more than 108 Pershing II warheads in Europe at full deployment? Will there be any missiles present as reloads?

General **Rogers**. No. In accordance with the 1979 NATO decision only 108 Pershing II warheads will be deployed. There will be no missiles present as reloads.

SLCM

Senator **Kennedy**. Are any sea-launched cruise missiles (TLAM-N) committed to SACEUR for use in a conflict?

General **Rogers**. No, presently there are no TLAM/N committed to SACEUR. Various options currently are being studied for the employment of TLAM/N.

SMALL ATOMIC DEMOLITION MUNITION

Senator **Kennedy**. What is the justification for the new small atomic demolition munition warhead mentioned in the FY86 Department of Energy Budget?

General **Rogers**. Your question must be directed to whomever requested such a warhead.

TACTICAL FOLLOW-ON MISSILE

Senator **Kennedy**. What is the justification for the tactical follow-on missile warhead mentioned in the 1986 Department of Energy budget?

General **Rogers**. There is expected to be a requirement for a longer range nuclear missile system to replace Lance. [Deleted.]

TACTICAL AIR-TO-SURFACE MUNITION

Senator **Kennedy**. What is the justification for the tactical air-to-surface munition mentioned in the FY86 Department of Energy budget?

General **Rogers**. A new standoff air-to-surface nuclear munition will improve the survivability of both aircraft and munitions by enhancing the probability of them both successfully penetrating the continually improving Warsaw Pact air defences. This will significantly increase aircraft availability by reducing potential attrition while also providing for reduced requirements for nuclear weapons.

[Whereupon, at 12:40 p.m., the committee adjourned, subject to the call of the Chair.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 1986

THURSDAY, FEBRUARY 28, 1985

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

BINARY CHEMICAL MODERNIZATION

The committee met, in open session, pursuant to notice, at 9 a.m., in room SD-124, Dirksen Senate Office Building, Senator Barry Goldwater (chairman) presiding.

Present: Senators Goldwater, Thurmond, Warner, Cohen, Quayle, Wilson, Denton, Hart, Kennedy, Bingaman, and Glenn.

Staff present: James F. McGovern, staff director and chief counsel; Arnold L. Punaro, staff director for the minority; and Christine C. Dauth, chief clerk; Robert G. Bell, Robert F. Bott, Douglas R. Graham, John J. Hamre, William E. Hoehn, Jr., George K. Johnson, Jr., and David S. Lyles, professional staff members; Russell C. Miller, research assistant; and Karen A. Love, staff assistant.

Also present: Gerald J. Smith, assistant to Senator Goldwater; Romie L. Brownlee, assistant to Senator Warner; Robert P. Savitt, assistant to Senator Cohen; Henry D. Sokolski, assistant to Senator Quayle; John L. Roddy, assistant to Senator East; Mark J. Albrecht, assistant to Senator Wilson; Allan Cameron, assistant to Senator Denton; John Rasmussen, assistant to Senator Gramm; Janne E. Nolan, assistant to Senator Hart; Jeffrey B. Subko, assistant to Senator Exon; Peter D. Lennon, assistant to Senator Levin; James Steinberg, assistant to Senator Kennedy; Charles C. Smith, assistant to Senator Dixon; and Phillip P. Upschulte, assistant to Senator Glenn.

OPENING STATEMENT BY SENATOR BARRY GOLDWATER, CHAIRMAN

Chairman GOLDWATER. The meeting will come to order.

Now I have to say before any formal remarks of introduction that I make that I realize that this is a very, very distasteful subject. It is a subject that is not understood by the American people and where the understanding exists in the American people it is probably limited to the subject of mustard gas in World War I.

We were not subjected to the use of chemical warfare to any extent in World War II. Consequently, a great revulsion built up in this country among our citizenry against the use of chemicals as a weapon, just as there has been a great revulsion built up and a similar lack of understanding about the use of atomic weapons which all of us out of uniform and in uniform recognize.

I am very hopeful that the major result of these hearings this morning, and more if we feel they are necessary, will be to help the American people understand that we have as a possible enemy—I won't say our enemy, but we have as a possible enemy a group of people who are already using chemical warfare in some of its most insidious forms.

Having served for 8 years on the Intelligence Committee, I was privy to, I won't say privileged because I don't feel being exposed to this terrible method of warfare is a pleasurable experience. But it gave me a very thorough understanding of what our potential enemies have in the way of chemical weapons, weapons that we have little experience in dealing with and, in my opinion, very little equipment to defend ourselves against their use.

Now, the committee convenes in open session this morning to receive testimony on the binary chemical modernization program in review of the fiscal year 1986 Defense authorization request.

Our hearing this morning, which will focus on the military requirement for the binary chemical modernization program, will consist of three separate panels.

The first consists of Gen. Frederick Kroesen, U.S. Army, retired, the former Commander in Chief of the U.S. Army, Europe; Gen. Robert Dixon, U.S. Air Force, retired, the former Commander of the Tactical Air Command; and Adm. Isaac Kidd, U. S. Navy, retired, the former Commander in Chief of the U.S. Fleet Atlantic Command.

The second panel will consist of Gen. Glenn Otis, U.S. Army, the current Commander in Chief of the U.S. Army, Europe, and Gen. Charles Donnelly, Jr., U.S. Air Force, the Commander in Chief of U.S. Air Forces, Europe.

It is my understanding that these witnesses have brought several soldiers in from the field who are dressed in chemical protective gear, and who are prepared to answer questions about how this gear affects their battlefield effectiveness.

The final panel includes Dr. Tom Welch, the Deputy Assistant to the Secretary of Defense for Atomic Energy and Chemical Affairs, and Mr. David Emery, the Deputy Director of the Arms Control and Disarmament Agency.

Dr. Welch will provide an overview of the administration's fiscal year 1986 request for the chemical deterrent program, and Mr. Emery will address the relationship of this modernization program to our efforts to negotiate a verifiable chemical weapons ban.

Throughout our hearings this year, the committee has received testimony from administration witnesses and senior U.S. military personnel that identifies our lack of a credible chemical retaliatory capability as one of our most serious military deficiencies.

In fiscal year 1986, the administration is requesting $1.27 billion for the U.S. Chemical Deterrent Program, of which just $207 million is associated with a retaliatory capability; $936 million, or 73 percent, is for protective measures, and the remaining $132 million is for the demilitarization of existing obsolete munitions.

I share the view that the modernization of our chemical deterrent with binary munitions is an urgent national security priority.

I also understand that this is a very emotional and politically unpopular issue. But it is precisely because the consequences of chemical warfare would be so terrible that we must be able to deter it effectively, and that means a credible U.S. retaliatory capability.

In my view, it is unconscionable for us to ask our young people to put their lives on the line for our country, and then to deny them the tools necessary to ensure their safety and survival.

Before I ask Senator Nunn for any statement, I would like to read a letter I received yesterday afternoon from the White House:

> DEAR BARRY. I am extremely pleased to learn that the Senate Armed Services Committee is holding hearings on chemical modernization. The asymmetry we face with the Soviet Union necessitates that we act now with determined bipartisan support on this very critical defense issue. I assure you that regaining a chemical warfare deterrent is high among the priorities of the Administration, and I pledge vigorous efforts in pursuing this objective.
>
> We wish that an agreement effectively banning chemical weapons could be reached with the Soviet Union at the current meeting of the Committee on Disarmament in Geneva. However, the comprehensive draft treaty Vice President Bush tabled in Europe last year has not been seriously addressed by the Soviet Union thus far.
>
> Until the Soviet Union negotiates a verifiable and meaningful agreement it is essential we have credible chemical retaliation capability to ensure that the men and women in uniform are not placed at unnecessary risk.
>
> Please extend my concerns to your colleagues as you begin your hearings on the chemical issue. Sincerely, Ronald Reagan.

Senator Nunn has not arrived, so we will begin the testimony.

I imagine the first witness will be General Kroesen.

Is that how you had it planned?

General KROESEN. Yes, sir.

Chairman GOLDWATER. You may read your testimony or we will put it in the record as if read and you can be prepared to answer questions.

I believe that this hearing is of such importance that we will allow questions to be asked of each panel as the panel finishes.

So, you may proceed.

STATEMENT OF GEN. FREDERICK J. KROESEN, U.S. ARMY (RETIRED), FORMER COMMANDER IN CHIEF, U.S. ARMY, EUROPE, ACCOMPANIED BY GEN. ROBERT J. DIXON, U.S. AIR FORCE (RETIRED), FORMER COMMANDER, TACTICAL AIR COMMAND, AND ADM. ISAAC KIDD, U.S. NAVY (RETIRED), FORMER COMMANDER IN CHIEF, ATLANTIC

General KROESEN. Thank you, Mr. Chairman.

My colleagues, Adm. Ike Kidd and Gen. Bob Dixon, and I are pleased to have this opportunity to discuss the chemical warfare challenge which faces our military forces today.

Just a year ago, as members of a study group under contract to the Institute for Defense Analyses, we completed a study of the combat effectiveness and capabilities of United States and other NATO forces in a chemical environment. There were 21 members of the study group, all retired from active service, representing all four of our armed services.

We have prepared a joint statement, Mr. Chairman, which I would like to enter into the record and then ask your permission to give a short presentation about our report on the study that we undertook.

Chairman GOLDWATER. That will be made a part of the record.

[The statement of General Kroesen and accompanying report follow:]

PREPARED STATEMENT OF GEN. FREDERICK J. KROESEN

Mr. Chairman, my colleagues, Admiral Ike Kidd and General Bob Dixon, and I are pleased to have this opportunity to discuss the chemical warfare challenge which faces our military forces today. Just a year ago, as members of a study group under contract to the Institute for Defense Analyses, we completed a study of the combat effectiveness and capabilities of U.S. and other NATO forces in a chemical environment. There were 21 members of the study group, all retired from active service, representing all four of our armed services.

We produced a lengthy classified report which discusses the threat, i.e., the capabilities of the Soviet Union to employ chemical weapons, and the likelihood of their employment of chemicals in support of an offensive military campaign aimed at the conquest of West Germany and the Benelux countries. We studied the readiness and capability of the U.S. and other NATO forces to counter such an offensive. We designed plausible campaign plans for the opposing forces and then, using anecdotal vignettes, we described the chemical environment in which our forces would have to operate, and their successes and failures if our campaign plans were put into execution.

Let me express briefly our most significant conclusions.

First, we believe that Soviet forces are trained, equipped and able to employ chemical weapons on the battlefield. Further, we believe that if they find reasons sufficient to cause them to launch a military offensive, those same reasons will be sufficient to justify their use of chemicals.

Second, we believe that U.S. and NATO forces are at a tremendous disadvantage if Warsaw Pact forces employ chemical weapons in support of an offensive. The best defensive equipment in the world, i.e., protective clothing, alarms, decontamination means, cannot possibly ensure defensive success on a battlefield on which the attacking force can employ chemicals at will while the defense cannot. The encumbrance of chemical gear is exhausting and debilitating for personnel engaged in almost any military activity. When one side is forced into such gear while the other has the choice of remaining unencumbered, through selective or limited use of chemicals, a decisive combat effectiveness asymmetry develops immediately and the encumbered force has little chance of mounting effective operations. Under such conditions, the pace of an enemy offensive would be accelerated significantly and major damage to friendly forces at the front and in the rear areas would occur almost immediately. The deficiency which contributes most to the current disadvantage is the inadequacy of our retaliatory capability, i.e., a means of assuring that enemy forces will also have to fight equally encumbered by their protective gear. Defensive measures alone, barring some magic immunization serum, can never establish or restore balance in a combat zone.

Our third conclusion is that the current NATO policy, which acknowledges a requirement for chemical retaliation, but for which NATO has issued no guidance, in fact, relies primarily upon firepower, i.e., a nuclear response to enemy chemical use, thereby dictating a lowering of the nuclear threshold, a consequence that is neither desirable nor practical. A nuclear response is not automatic and because there are countless ways in which chemical weapons can be used selectively or "surgically" rather than for mass destruction, we question whether nuclear release would or should follow if only one NATO corps reports itself under chemical attack or if only one air base is struck by chemical warheads. Either of those attacks might trigger decisive results, the first portending a massive breakthrough by ground forces, the second, if it is an American base, inhibiting essential reinforcement—not from the disruption at that air base alone, but because all other air bases would have to adopt precautionary protective actions and restrict their operations and activities. Nevertheless, even these consequences do not trigger an automatic nuclear response, only the deliberate calculations associated with the NATO nuclear policy.

A fourth conclusion is that our efforts to modernize our armed forces are dangerously incomplete if they do not include measures assuring the modernization of our chemical capabilities as well. We are improving the capabilities of our battle commanders' command and control, their ability to find enemy forces far beyond the battle lines, to communicate intelligence information, to control strikes deep in enemy territory, and we are improving the weapons systems which can inflict great damage on those targets. The Army has sponsored new doctrines for fighting in the enemy's rear areas rather than our own. All of these improvements will be affected adversely and some may be neutered by a failure to deter any enemy use of chemicals or a failure to assure operational effectiveness when under chemical attack.

Congress in the past has been generous in funding for the defensive elements of our chemical program, and the Defense Department has been supportive of everything the services asked for. Nonetheless, our defenses are inadequate. At the time of our study the services had not challenged our research and development community to find better means of individual and collective protection, better alarms and better systems for assuring the continued functioning of essential operations subjected to chemical attack. All of these things need your continued attention and support, but above all else, U.S. forces need offensive weapons, a capability to retaliate, a capability that will assure better balance on the battlefield. Without exception, the members of our study group advocate the production of binary munitions. For safety reasons alone, binary munitions are the only sensible ones to build, but if they continue to be unacceptable, we advocate an immediate modernization program for the munitions we now have. Doing nothing or renewing production of unitary munitions is a Hobson's choice, but any step to improve our retaliatory capability is better than none.

Our study group acknowledges and respects the moral high ground that the United States established with the 1969 moratorium on the production of chemical weapons. We, to a man, want and advocate nothing more than a continuation of the non-use of chemicals that our Armed Forces have enjoyed since World War I ended. But we also are certain that the moratorium will not guarantee non-use and will not protect soldiers on the battlefield or sailors and airmen in their milieus, and it will not negate the tactical advantages an enemy would have if he launched a campaign of conquest, employing chemicals to support his operations. We believe that deterrence can be achieved only by a perceived counterthreat which can balance the advantages of employing such weapons. Denial of that counterthreat creates an unacceptable risk for our Armed Forces.

[The report follows:]

1458

IDA PAPER P-1820

CHEMICAL WARFARE STUDY: SUMMARY REPORT

Gen. Frederick J. Kroesen (Ret.), et al

Performed under subcontract for
INSTITUTE FOR DEFENSE ANALYSES

Burdeshaw Associates, Ltd.
4701 Sangamore Road
Bethesda, Maryland 20816

February 1985

INSTITUTE FOR DEFENSE ANALYSES

Contract MDA 903 84 C 0031
Task T-3-200

PREFACE

This study was conducted by the Burdeshaw Associates, Ltd., under subcontract from the Institute for Defense Analyses. IDA supported this research effort because it provides a view of chemical warfare--the analysis of chemical warfare issues and operations from the military commander's point of view--that complements, in a unique manner, the research being done by IDA for the OSD and the OJCS.

This report contributes significantly to an understanding and an awareness of the issues and problems surrounding the use of chemical weapons.

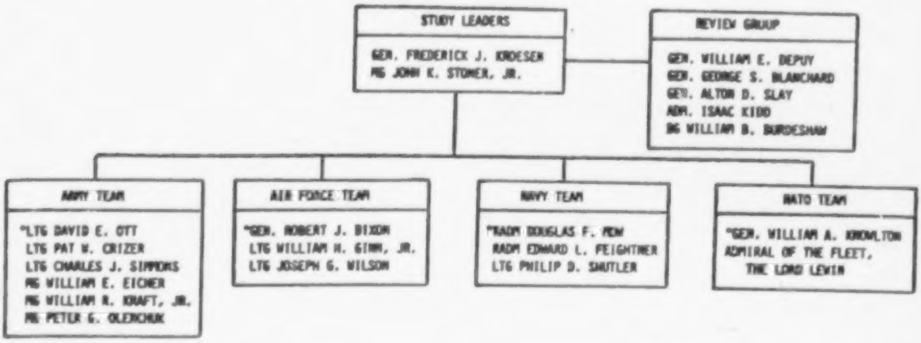
The study was conducted in response to DoD Task Order MDA 903 84C 0031 : T-3-200.

PROLOGUE

"We are unaware of the enormity of our problem, of the vulnerability of our forces to an attack, and of the high risk of defeat if they are not provided an ability to fight back, to retaliate with stones of equal weight from catapaults of comparable power."

- Anonymous

STUDY ORGANIZATION



INTRODUCTION

In the fall of 1983, Burdeshaw Associates, Ltd. engaged in a study to compile a "comprehensive assessment of the probable nature of a future chemical conflict" which could be used as a base upon which U.S. policies, concepts, and doctrines appropriate for a national chemical warfare program could be developed. The study was commissioned by a Department of Defense Task Order* implemented by an Institute for Defense Analyses contract** for the services of the BAL corporation. It was instigated by a growing perception that the threat of chemical warfare was increasing as the capabilities of U.S. forces continued to erode. In recent years, the intelligence community has become more aware of a continuing Soviet development of chemical agents and delivery means, and an apparent willingness to use or at least to test the effects of these developments in the field. Just as inimical to U.S. interests has been the use of chemicals by other powers and the threat of chemicals in the hands of terrorists.

The study was accomplished by 21 retired military officers, all flag officers of one- to five-star rank, representing all of the U.S. armed services and one other NATO nation. It provided, in narrative form, the collective military knowledge, experience, and judgment of this group regarding chemical warfare. They were guided by the estimates and projections of the U.S. intelligence community and by the current and proposed chemical defense program of the Department of Defense and the military services.

This report is a condensed and unclassified summary of the report completed and submitted in 1984 to satisfy the terms of the cited contract.

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*DOD Task Order MDA 903 84 C 0031: T-3-200

**IDA Sub-contract MDA-0018-7

THE STUDY

The general purpose of the chemical warfare study was to describe a chemical environment and its impact on the capabilities and effectiveness of military forces and their operations. The study addressed a NATO scenario set in a 1990 time block, with NATO forces employed to oppose a Warsaw Pact general offensive aimed to overrun West Germany and the Benelux countries. The scenario was conventional, that is, it depicted the generally accepted Warsaw Pact force commitments, avenues of approach and axes of advance, and a NATO forward defense strategy using the forces available after about seven days of mobilization and deployment. U.S. Forces were organized, equipped and modernized in accordance with the current Five Year Defense Program, however, it was assumed that no binary munitions production had been authorized and that there had been no redisposition of current stocks.

Based on the general scenario, the authors of the report prepared a campaign plan and subordinate ground, air, and naval operations concepts for Warsaw Pact forces. These concepts, in addition to addressing normal maneuver and fire power schemes, consider in some detail the question "Why chemicals?" and express the military significance of the advantages and disadvantages of employing these weapons.

The study group also prepared a NATO defense plan, expressing, in the role of the Supreme Allied Commander and his major subordinates, air, naval, and ground operational concepts designed to prevent a Warsaw Pact success. Their study considered the question "What if chemicals?" and explored the capabilities and conditions of readiness of the NATO forces to cope with a chemical attack.

The report then describes, in vignette and anecdotal form, a collection of events which might occur in a war waged in conformance with the campaign plans of both sides. From these descriptions, the authors derived their findings concerning the capabilities and limitations of U.S. forces and presented an appraisal of the impact of chemical weapons on the ability of NATO forces to withstand a Warsaw Pact offensive.

FINDINGS

The findings of the study address five principal subjects which are discussed in the following paragraphs.

First, the threat, i.e. enemy capabilities and the potential for employment of chemical weapons in support of military operations. The study group did not develop an independent intelligence analysis of the threat posed by Soviet and other Warsaw Pact chemical warfare capabilities. They did, however, review current intelligence information and synthesize their findings into a compilation of facts and estimates which provided a common base for the other parts of the study.

The fact that there was not to be an intelligence analysis did not preclude the study group from recognizing that the 1969 U.S. moratorium on chemical production apparently triggered a reduction in priority and in interest in chemical matters in the intelligence community; consequently, our knowledge today lacks depth and reliability. We need more information to determine the scope and range of Soviet capabilities, and certainly of Soviet intentions. Nevertheless, we know enough to be extremely concerned that the threat is serious, the potential for use is likely, and that the consequences of use will be significant. Soviet forces possess a versatile array of agents which can damage the nervous systems, blood systems, or respiratory systems of soldiers or sailors or airmen opposing them; they possess delivery means which can deposit those agents throughout the land areas of NATO where they can attack air bases, seaports or population centers as well as front line troops, and they can strike ships or convoys at sea, even in the expanses of the

Atlantic Ocean. We found no reason to be complacent about their potential or their intent.

The following is an extract from a vignette found in the report which describes the situation at a naval base in Southern Europe at the time the base is struck by enemy air and missiles launched from Libyan bases. The scene is portrayed through the eyes of Petty Officer Sam Barnes, an air controller working in the control tower and is illustrative of what might be happening at hundreds of NATO installations.*

> Suddenly, in the light from the explosions Barnes noticed a small group of airmen suddenly seize their throats and crouch over with convulsions. Strange, Barnes thought, but darkness returned to the scene as his attention was immediately drawn elsewhere. Again, a flashing light outlined the small group near the tower. Now they were writhing on the ground and each man seemed to be gasping for air. "My God, it must be gas! A chemical attack!" Suddenly Barnes remembered he had taken his chemical protective gear to the barracks two days ago to mark the mask with his name. The seriousness of his situation now began to become clear. He was horrified and looked about wildly for additional clothing. There was none available. In fact, two others in the tower were in the same predicament. Almost immediately Barnes' eyes began to burn and he felt a tightness in his upper chest and throat. In only a second or two more, he began to have difficulty breathing and felt extremely nauseous. In his final moments of consciousness he took one last look around the field from the tower. The hangars, shops, barracks, refueling pits, fuel storage areas, ordnance storage areas were all damaged. Fire and smoke were everywhere, and the gas emanating from the chemical warheads had begun to take a terrible toll. Air operations ceased. The wounded and dying were everywhere and the survivors from the explosions were rapidly succumbing to the chemical agents. Very few of the base personnel had managed to get into their protective gear in time. Darkness made the visual detection of any chemical impossible and there were too few detectors on the base.

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*The vignette portrays a scene which might occur in 1990 if the chemical warfare plans, preparations, and readiness remain as they were found to be in 1983.

> Some pilots were trying to get airborne. The runway was cratered and taxiways had been hit. A low white cloud sitting directly over the entire base complex punctuated the dead calm of the early morning hour. Operations in the tower had ceased.
>
> Rescue crews in protective chemical gear began to move about the field. The toll included hundreds of men and women, caught without protective clothing, who died within thirty minutes following acute stages of nausea, by loss of muscular control and then unconsciousness. Others suffered nearly the same symptoms but escaped death following a long period of incapacitation. Petty Officer Barnes was one of the latter. He was found an hour after the attack unconscious but alive. He had been exposed only briefly to the chemical toxins as they settled in the cloud just above the ground but beneath the tower elevation where he had been working.
>
> It would be many hours before the base could be operational again. Clean-up and repair proceeded at a snail's pace because of the presence of chemicals which seemed to cover everything. Medical aid was woefully inadequate. Doctors and corpsmen worked steadily for 24, 48 and even 72 hours before fatigue forced a halt. Treatment for chemical victims was not clearly understood by personnel drafted to help serve as medical assistants. Medical supplies of all kinds were quickly used up. In many instances medical packages themselves became contaminated with the chemical residue which lay everywhere.

The second set of findings answers the question "Why chemicals?" Although the study group had to postulate the employment of chemicals in the scenario of the study -- it would not, after all, have been a chemical study without such conditions -- there was a decided requirement to inquire into the advantages and disadvantages of the use of chemicals. As a consequence, the group asked itself why Warsaw Pact forces would or would not, should or should not employ chemical weapons. The answers to those questions are provided in the following paragraphs.

- There is no question that chemicals, employed against an unprepared and unwarned population, military or civilian, can render a target almost instantaneously totally ineffective.

Given a surprise employment of this nature, the impact on a defending force would be devastating and an attacking enemy would encounter little organized resistance.

- It is true that such complete surprise would be unlikely in a NATO-Warsaw Pact confrontation, therefore, the effect on fully warned and prepared forces is a more important question. Here again there is a significant military impact, because warned and prepared forces suffer a severe degradation in capability and effectiveness. Employment by the enemy, particularly an enemy offensive force, drives the defender into protective clothing, an encumbrance which restricts vision, movement and dexterity and which is both enervating and debilitating. Evidence now available suggests that the effectiveness of individuals is reduced immediately by 50% or more, depending upon skills required, and that it deteriorates further over even the shortest periods of time.* An offensive force, through judicious selection of an agent and of a mixture of persistent and non-persistent gases, can force a defender into a fully protected posture, can attack with troops who need no or only minimum protection, and can create an asymmetry of battlefield effectiveness which almost guarantees success.

The following is extracted from a vignette reporting the activities of a field artillery unit. It illustrates the degradation of its combat effectiveness even though it is a unit which was warned and prepared for a chemical attack.

> The field artillery weathered the chemical strike better than most other elements of the 3d Armored Division. The 3AD imposed severe restrictions on firing from main battle positions until absolutely necessary and many batteries had not fired, and therefore, had not been located by the enemy. Most of the batteries that had fired were attacked heavily with

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*U.S. Army Materiel Systems Analysis Activity (AMSAA) report: The Effects of Chemical Protective Clothing and Equipment on Combat Efficiency.

semipersistent agents and several "suspect areas" were subjected to semipersistent agents resulting in the partial coverage of a few others. The immediate impact was not overwhelming, but it was serious. Soldiers were very tired from their actions earlier in the day. Many were sleeping with protective equipment strewn haphazardly, nearby but not handy.

Word that a massive chemical attack had been launched resulted in a great hustle to get in a proper posture. Panic was the exception because these troops had been in battle and the nature of the battery positions permitted junior leaders to exert positive control and direction. Nevertheless, continuing the battle in protective ensemble began very soon to create serious heat casualties. From the time of the Soviet attack, the field artillery worked and fought at a fever pitch and the effort of handling tons of ammunition proved soon to be beyond the physical capacities of the soldiers. The sustained firing rate dropped to only 25 percent of that expected. Normally, the firing rate is limited by the heating of cannon tubes, but the tired troops, debilitated by the heat buildup in their protective clothing, could not fire fast enough to overheat the cannons. This condition resulted in a significant degradation in field artillery performance. Difficulty in seeing with masks on and the difficulty of talking through the mask added to this degradation.

The Soviets were aware that their chemical strike had not hit a high percentage of the artillery batteries, and so in the hours that followed, as they located these positions, they included chemicals in the concentrations of their counterbattery fires. This, of course, kept the NATO field artillery personnel in their protective ensemble all the time.

Within 24 hours, the artillery men ran into another problem. Ammunition at their supply points had been subjected to chemical attack and the result was the forward movement of contaminated ammunition. The paucity of decontamination equipment resulted in a Hobson's choice between accepting contaminated ammunition or not receiving any at all! Contaminated ammunition posed a problem for firing units. They had no on-site capability to decontaminate arriving ammunition, therefore, to unload, store and fire it required troops to be in the full protective ensemble, a very serious problem in the hours that followed.

In summary field artillery units, even though warned and prepared, suffered from three major problems: chemical casualties, fatigue and heat

> prostration, and contaminated ammunition. The result was an immediate, continuing and growing loss of effectiveness.

- It is also true that, regardless of the degree of warning and preparation, chemical agents, historically and by projection, are demoralizing and generate panic. Since nothing is more destructive of military capabilities, the introduction of panic among NATO forces becomes an attractive aim for enemy war planners. In addition, the employment of chemicals will provide a strong signal of determination to win at all costs and contribute simultaneously to sapping the will of the defense forces and the populations depending on them.

- There are innumerable opportunities for using chemicals selectively, or "surgically" against critical targets. Special forces, equipped with grenade-sized chemical weapons can attack headquarters, communications nodes or control towers and put them out of action. Single or small clusters of chemical rockets can disrupt air and seaport operations, shutting them down when the threat of follow-on attack prevents an ill-equipped work force from returning to their jobs. Given the potential for covert deployment of special forces before the outset of an offensive, this capability is a very serious threat. The cost-effectiveness and the risks associated with such uses in comparison with any other means of accomplishing the same results make this type of employment most attractive for an attacking army.

The following is an extract of a vignette reporting the impact of an attack on the U.S. European Command headquarters in Stuttgart on the morning of the Warsaw Pact Offensive. It is illustrative of the impact of a selective, limited use of chemicals.

> The dawn of day May 13, 1990, started typically at Patch Barracks near Stuttgart. The light was just beginning to make the post visible; there was a ground fog hugging the sidewalks and roads. The little collection of old German barracks, converted to staff functions for the headquarters, seemed almost to be a

Bavarian village. In the midst of them but not much higher than the surrounding buildings was the European Command (EUCOM) Command Center - a key link in the United States command and control chain. Suddenly, at about 0415 hours, the calm of the post was shattered by a series of explosions, and a part of the command building crumbled. The console from which all European command activities were directed was buried under a mass of rubble and ceased to function. The wave of over-pressure shattered windows around the headquarters building and collapsed the antenna tower.

Within two minutes a more muted, duller explosion portended results that were more catastrophic. Unbeknownst to all of the personnel of the EUCOM headquarters and the families who lived at the post, a chemical cloud was now drifting over the Patch Barracks.

In a second floor apartment, Major John Swift awakened at the first blast. Instinct led him to throw on his clothes in order to be of some help if there had been an explosion of a boiler or some other catastrophe. It was at that point that he heard the second explosion. The idea of gas crossed his mind, but only briefly. All military personnel of the European Command had been fitted for gas masks, but they were locked in a supply room somewhere. It was planned that they would be issued in the event that Soviet use of chemical warfare became a possibility. However, there were no masks for Margot, his wife, or for their two sons. All died within minutes.

At EUCOM headquarters, the gas masks rested largely untouched in the supply room of the headquarters company of the garrison at Patch Barracks. The keys to the supply room were held by Sergeant 1st Class Schmidt. Sergeant Schmidt lived on the compound and should have been able to get to the supply room very quickly; unfortunately, he had been among the first chemical casualties and had collapsed before getting more than forty feet from his house on the way to his office.

Rescue efforts and an attempt to reconstruct the communications links were both hampered by a combination of the destruction from the large Soviet rocket which had hit the building and the persistence of the chemical agent which limited any effort to gain access to the area. A Brigadier General from U.S. Army Europe, flying in an alternate command plane over the area, suddenly found himself disconnected from his parent headquarters and apparently responsible for the functions normally carried on by a four-star general and a complete staff.

- The preservation of infrastructure is another important advantage offered by the use of chemical weapons, particularly for a force bent on the subjugation of territory and people. Reducing or eliminating the need for high explosive munitions to support the advance of forces provides a high payoff when buildings, bridges, and stocks of supplies can be captured intact.

- Finally, and perhaps most significant, the use of chemical weapons can be expected to accelerate the pace of battle and the speed of the offensive to a degree which almost forecloses upon effective countermeasures. Increasing the speed and mass of breakthroughs and other penetration operations simultaneously compresses the time available to NATO for deliberating whether and where to employ its firepower, and can well result in progress which certainly complicates if it does not deny the ability or the wisdom of tactical nuclear counter-strikes.

The disadvantages of employing chemicals are of three basic distinctions. First the invitation for retaliation which subjects ones own forces to the same effectiveness degradation as that imposed upon the enemy. Second is the significance of the world's repugnance to the employment of weapons long touted to be immoral and disgusting. The third, and most serious, is the potential for triggering desperate measures by the enemy, i.e., a lowering of the threshold of nuclear response as the only hope of denying quick success.

- Given the inadequate defense and lack of any significant retaliatory capability among the NATO forces, the first disadvantage is almost inconsequential to a Soviet decision. The limited amounts of short-range, obsolescent chemical munitions available to NATO will be no deterrent to their use by the Warsaw Pact.

- Given the history of a Soviet lack of concern for world opinion, the second disadvantage is also of little consequence. Suspected use of chemical agents in Southeast Asia and Afghanistan is an indication of a willingness to risk world disapproval when tactical or strategic success is at stake.

- It is the third disadvantage which must give Soviet planners pause in their considerations concerning the employment of chemicals. The stated NATO policy, that imminent defeat will be countered with nuclear weapons, is a serious proclamation. Against that policy, the planner must consider the impact of chemicals on the pace of battle and the promise of a rapid conquest which would preclude the probability of the nuclear counterstrike. The study group believed that a well planned, well executed offensive campaign might well be foreseen as more than sufficient to overcome this disadvantage, particularly under circumstances which would cause the Warsaw Pact to undertake such a campaign in the first place.

The report reflects that after reviewing the advantages and disadvantages of supporting his attack with chemicals, the Warsaw Pact commander informs his superior that ". . .we would be militarily foolish if we did not employ these weapons."

The third set of findings deals with the question "What if chemicals?" In addition to the impact that is portrayed in the vignettes associated with the "Why chemicals?" question addressed above, the study group found that NATO military forces are not adequately equipped, trained, or prepared for chemical warfare. Individual soldiers, sailors, and airmen are equipped to survive, but not to be combat effective under chemical attack. Collective protection is almost nonexistent, and it would be next to impossible to rearm and refuel aircraft or repair tanks or maintain a functioning headquarters in a chemical environment. Civilian employees at POMCUS sites, contract workers at supply and maintenance facilities, and the work force which operates the ports of Antwerp, Bremerhaven, etc., have no protection. In addition to all of the limitations on defensive capabilities, the ability to retaliate is severely limited. Only the U.S. has an immediately available stock of weapons and delivery means and they are in numbers and ranges that constitute, at best, a token response capability.

The fourth set of findings establishes that current Department of Defense programs do address current shortfalls and inadequacies of our intelligence effort and our defensive means. There is no question that we will be better prepared for chemical attack in 1990 than we are now, presuming continued Congressional support for the program. Nevertheless, and although great improvement can be predicted as chemical training and readiness gain higher priority in all services, U.S. forces even then will not be able to sustain an adequate, effective combat posture against a prolonged chemical attack. Individual protection, collective protection, alert and warning systems, and decontamination will all continue to be inadequate. Defensive measures done alone will not provide insurance against enemy use of chemicals. Our forces need a retaliatory capability, more varied and versatile delivery means, and vastly improved defensive means that will guarantee the continued functioning of both personnel and installations. All of these things are possible, none is assured by our current approved programs.

The final finding of the study group deals with the modernization programs of the Armed Forces. We are, at great expense, improving our abilities to find the enemy over much wider expanses of terrain, to communicate this intelligence more rapidly to forces in the field, and to react and respond with weapons that are more lethal and of greater ranges and reliability. We are developing new doctrine for the employment of our improved capabilities. But all of this modernization is hostage to the absence of a companion program modernizing our ability to survive and fight in a chemical environment. Even the simplistic employment of chemicals in the scenario depicted in this study is sufficient to cripple the elements of the Army's "deep attack" doctrine and to immobilize the forces designed to carry it out. The 600-ship Navy, except for its undersea fleet, will remain vulnerable and there are no innovations in our modernization programs that will protect new missiles, aircraft or air base functions from chemical agents. The relative pittance needed to provide an adequate retaliatory capability and thereby satisfy the primary need identified in the study, i.e. deterrence, is a bargain not offered by any other defense program.

THE PROGRAM

A final review of the Five Year Defense Programs of the Armed Services and an appraisal of their projected ability to alter the situation predicted by this study reveals the following.

All services recognize four fundamental areas requiring program attention: deterrence, survivability -- both individual and collective -- retaliation, and decontamination. All identify deterrence as the first priority, but each recognizes that an offensive delivery capability is the basic requirement for satisfying the objectives of deterrence, survivability and retaliation. And all services have identified the means to provide adequate delivery systems, usable agents and weapons, and the distribution of stocks essential to a credible deterrence. None, however, have in fact dedicated the resources necessary to a satisfactory recovery from the current conditions of dangerous inadequacy.

The BAL study group believes that the FYDP requires alteration and amendment, first to raise the priority of the overall chemical warfare program to allow it to compete with MX missiles, C-17 aircraft, M1 tanks, and the 600-ship Navy. Given such priority, binary munitions take their rightful place in the program and a credible deterrence of chemical warfare attains an appropriate stature as a prime defense objective.

There are many shortfalls in our current programs. Imaginative and innovative research is required to provide better detection and warning, better, less debilitating individual protection, and greater assurance of the survivability of combat functions and systems. Decontamination remains a serious challenge that will not be resolved by current programs. But the most serious lack remains that of an obsolete, almost nonexistent offensive capability.

The study group recognizes the moral high ground staked out by this nation's renouncement of chemical production in 1969. We recognize also that our example has failed to halt either the production or use of chemical warfare means by other nations, and that a serious imbalance and a dire threat have resulted from our 15 year moratorium. We advocate nothing more than the steps we believe essential to assure the absence of chemicals from the battlefields on which our forces may be engaged in the future, that is a force ready and able to survive and function in a chemical environment, a force competent to achieve the objectives it has been assigned.

SUMMARY

In retrospect, the following are the principal points made in this study:

There are gaps in the U.S. information about the Soviet Union's chemical warfare capability.

The Soviet armed forces are trained, equipped, and willing to employ chemical weapons on the battlefield. Further, reasons sufficient to cause the WARPACT to launch an offensive against

NATO would also be sufficient to support their employment of chemical weapons in that offensive.

U.S. and NATO forces suffer inordinate disadvantage if called upon to mount an effective defense against a Soviet offensive supported by chemical weapons. Defensive equipment will not assure defensive success on a battlefield on which an attacking force can employ chemicals at will and the defensive cannot. The encumbrance of chemical gear is exhausting and debilitating. When one side is forced into such gear while the other side can selectively avoid its use, a decisive combat effectiveness-asymmetry develops. The encumbered force steadily deteriorates in effectiveness and balance can be restored only if offensive retaliation in kind restores symmetry.

The current NATO retaliatory policy, calling for nuclear response to prevent imminent defeat, is suspect under conditions of chemical warfare. The speed of a Soviet offensive exploiting penetrations made possible by chemical attacks will face NATO commanders with enemy forces ranging widely in their rear areas, intermingled with NATO forces and with the civilian population. The nuclear decision under these circumstances will be one fraught with the dangers of very rapid escalation.

Recent and on-going modernization programs for U.S. armed forces are hostage to our failure to modernize our chemical capabilities. Improvements in our ability to generate battlefield intelligence, pass battle data rapidly around the battlefield, and strike enemy forces with effectiveness are impressive. But they are all vulnerable where chemicals are most effective -- the human component. The most effective defense for the personnel operating these systems is a chemical retaliatory capability that either turns off the enemy use of chemicals or creates a like disruption in his modern battle systems.

General KROESEN. Mr. Chairman, ladies and gentlemen, about a year and a half ago we were members of a study group which addressed the purpose shown on this slide. We were asked to make a comprehensive assessment of the chemical environment in which our troops, our soldiers, sailors, and airmen would have to operate if we went to war and chemicals were introduced into the battlefield.

Under a contract to the Institute for Defense Analysis, that general task was described in more detail here as an evaluation of our chemical warfare posture, that of the United States and NATO forces, in opposition to a Warsaw Pact campaign which attempted to overrun Western Europe and employed chemicals in support of that offensive campaign.

Now, we began our study with a period of orientation and education, first on the 5-year defense program, the programs of all three of the services and the Department of Defense, identifying what they had in mind, how they were proceeding in the chemical program through the year 1989.

We had briefings from the intelligence community on what the threat actually is. We were disappointed in the detail and in the specifics that we were able to obtain from the intelligence community, determining early in our study that we had large gaps, that we lacked some of the specificity that we needed in regard to potential enemy use of and holdings in the chemical warfare field.

We did know, however, enough to know that there is an extremely serious threat and one that we think we are bound to be conscious of and must take some steps to cope with.

Having completed our education, we then put ourselves in the role of the Warsaw Pact commander. All of the members of this group were experienced commanders from our four services.

We put ourselves in the role of those commanders planning a campaign to overrun Western Europe. We used nothing exotic in our planning. That is, we took the kind of studies that have been accomplished in the past, used the normal allocation of forces that we believed Soviet and Warsaw Pact commanders would have.

We attacked through the normal avenues of approaches, axes of advance leading to the kind of objectives that we think would be natural and normal for military commanders to identify as they proceeded with this attack, the general plan being to close on the Rhein River, to cross the Rhein, to occupy all of Germany and the Benelux countries, moving to the channel ports in the initial phases of a major operation.

We postulated, of course, the use of chemicals as commanders saw fit to employ them. That is, they were given authority to use chemical weapons and they determined their own targets, determined their own uses for chemicals in support of their attack.

The only two limitations placed on the Red commanders were no biological warfare and no nuclear weapons to be employed in the initial phases of this operation.

Now, although we postulated the use of chemicals initially, we knew the question would arise as to why chemicals might be used. What are the advantages and disadvantages that these military commanders could see in employing chemicals in support of their offensive operations?

In identifying these advantages and disadvantages we came to the conclusion that a very dire threat exists for NATO forces if they are opposed by such an offensive operation. As military commanders we observed that if we could employ chemicals on an unwarned, unprepared, and unprotected objective, certainly the results would be devastating. There is no question that there would be practically no defense left if chemicals could be used on the unwarned and unprepared.

We know that that would probably not be the case, so, we also looked at the effect that we would have if we employed chemicals on a fully warned and a fully prepared NATO force. If that were the case, we presumed that the NATO forces would be completely equipped with their chemical gear and would actually be wearing it at the time of the attack.

In that case we found degradation of the defensive capabilities. There are many figures to identify what that degradation is. Some people say 30 percent, some 50, some 80 percent, depending on the type of job that soldiers or airmen have to accomplish. What we know is that there is some major degradation in their effectiveness in doing their jobs if they are in chemical gear.

So, we presumed if we could put them under attack and encumber them with that gear and then be selective in our use of chemicals so that we used persistent weapons in one place and nonpersistent weapons in another, we could be selective in the kind of encumbrance we placed on our own troops and created an asymmetry on the battlefield. That certainly gives a tremendous advantage to an attacking force who can move through an area with little or no chemical gear on troops while the defense, not knowing about the persistency, not knowing about the location of all the chemicals that have been employed, will continue to be encumbered, will not be able to go into an unencumbered condition.

The third advantage we saw for the use of chemical weapons is the historical record that shows that panic is induced among troops anytime chemicals are used. It is not universally true that every unit under attack panics, but panic has always been induced somewhere on the battlefield when chemicals have been employed.

There is nothing more destructive of military operations than panic which pervades a troop unit or panic which pervades the population that is in the general area of combat operations. The possibility of using chemicals just to sow that panic among the civilian population certainly is militarily significant.

There is no indication and we don't predict that military commanders would employ chemical weapons for that purpose, but that panic among the civilian population will be militarily significant is something that cannot be overlooked.

We found any number of ways to make selective or surgical use of chemical weapons that we think would be very effective militarily.

A few rockets into Patch Barracks where EUCOM headquarters is, or a small special forces team equipped with grenades that contain nerve gas can effectively put that headquarters out of action on very short notice. The possibility of employing such forces even before a campaign starts is certainly not to be overlooked.

Other surgical uses which have a bearing on the kind of response that might be expected would be only to use them at the place you wish to break through the ground forces and not against the other corps of other nations. The selective use will certainly cause anyone to question the kind of response that is appropriate for the employment of chemicals.

For a force attempting to conquer an enemy nation, certainly the fact that the infrastructure is undamaged by the use of chemicals is a factor to be considered. If you can capture intact the infrastructure of a populated nation, you have won a great deal in taking over that nation.

Probably most significant, we believe that the employment of chemicals will increase the pace of battle to such an extent that major breakthroughs, exploitation operations, and so forth, will proceed at a much faster pace than they would using conventional weapons only.

If that is true, we are going to be faced with deeper penetration. We are going to be faced with a limitation on the options that NATO commanders have to respond to such an attack. Certainly it reduces the time for reinforcement which NATO is counting upon and we believe it would speed the success of the offensive campaign.

In summary, when we had considered all of the advantages, we decided that the enemy would be militarily foolish if he did not employ chemicals in support of such an attack.

Now, there are disadvantages to the use of chemicals. Retaliation is one. You are inviting retaliation and the degradation of your own forces' capabilities if you use chemicals. We considered that, we investigated the retaliation capability of our forces and felt that in fact that disadvantage would be of no consequence to a Warsaw Pact military commander.

The NATO forces' retaliation capability is token at best. Only the United States and perhaps France have stocks of chemical weapons in NATO Europe. Only the United States has forces trained to employ those chemical weapons. Even the United States does not have a quantity which can match that which can be unleashed against us.

If we were military commanders of the Red forces, we would accept the casualties that might be caused by a NATO use of chemicals as just part of the battle, the same as if artillery fire or minefields or close air support aircraft would be causing casualties.

We do not believe that the current NATO capabilities to retaliate will have any bearing whatsoever on a decision to employ chemical weapons by the enemy.

There is, of course, the significance of world opinion. As you said, Mr. Chairman, there is the repugnance in the world about the use of these inhuman and immoral and disgusting kinds of weapons.

But we think that the history of the Soviet Union's lack of concern for world opinion probably tells us that they would not hesitate to use chemical weapons if there was justification for the campaign in the first place. That is, those things which cause them to launch the land campaign into Western Europe, those same factors will be sufficient to cause them to decide to use chemical weapons in support of that campaign.

The third disadvantage is the one that, of course, is the most significant. There is the possibility of desperate measures in response. The NATO policy that nuclear weapons will be used to prevent imminent defeat is certainly a serious proclamation and the kind of factor that must be taken into account if the enemy decides to employ chemicals.

Now, we decided, after long discussion and arguments about whether nuclear weapons are in fact a deterrent to the use of chemical weapons, that we could perhaps plan and execute a campaign in such a fashion that we would face the enemy, that is, NATO, with almost complete success by the Warsaw Pact forces before a nuclear option could be considered.

We think that the promise might well be worth the risk and we think, in all seriousness, that nuclear weapons are not a deterrent for, nor the answer to chemical attack, particularly when you consider the selective way in which those weapons can be employed. If only one corps is attacked by chemical weapons, the question of whether a nuclear counterstrike is appropriate certainly comes into question.

Having gone through the plan for our Red campaign, we then put on our Blue hats or helmets and prepared the NATO defense plans which we thought would be appropriate for the same kind of operation.

We employed our forces in accord with the conventional wisdom of commanders over the years. We did nothing, again, that was new or exotic in coming up with a defense plan for Western Europe. We engaged in a forward defense. We engaged in the normal air superiority campaign. We assured that our naval forces were guaranteeing the open sea lanes, the kind of things that are normal for naval commanders to be planning today.

But as we prepared that strategy we also asked ourselves the question, what if chemicals were employed against the Blue forces? We looked into the capability of the Blue forces to defend against chemical attack, and our report reflects a general lack of preparedness among NATO forces for this kind of attack.

One of the things that came to our attention is that the moratorium of 1969 which created either disinterest or a lowering of priority in the intelligence community which has created those gaps that I discussed earlier, also affected the command structure of all of our forces.

Our plans were not complete and our directives had not been issued and our procedures had not been defined for how we would employ chemicals, how we would get authority to use chemicals. Our training was inconsistent.

The forward elements of our forces, the combat forces, I believe are quite confident of their ability to survive on the battlefield and they engage in chemical training which is strenuous, thorough, which I believe does give them the capability to survive on the battlefield if chemicals are used against them.

They are not really capable of effective combat operations over a sustained period however, because our defensive equipment is not that good. They are subjected to that degradation of capability that goes with the debilitating and enervating factors that accompany the wearing of that equipment.

We felt that the continuity of operations would not be assured if the enemy makes some major use of chemicals against the NATO forces. Our collective protection is almost nonexistent. It is almost impossible to rearm and refuel aircraft if you are under chemical attack today in Europe. It is impossible to repair tanks. It is impossible to continue the functioning of a headquarters or a communications node or an intelligence system if you are under chemical attack and certainly if that attack is sustained for any lengthy period.

Our Pomcus operations, the issue of equipment to reinforcing troops, will stop almost completely because Pomcus sites are manned by civilian personnel who have very little protection.

Port operations at both airports and seaports come almost to a complete halt while they are under attack.

We came to the conclusion that although there was an acknowledgement of the seriousness of our situation if chemicals were used against us, a year and a half ago there was doubt that an adequate defense could be mounted in the face of chemical attack.

Now, having prepared these two campaign plans, we wrote a series of anecdotal vignettes describing the combat environment that we thought would ensue if these two campaign plans were executed in opposition to each other.

In our report you will find nine separate little stories about a maneuver battalion, a field artillery battery, a division command post, and so forth, that tell you what we, the former commanders of those organizations or units, think would happen if they were subjected to chemical attack.

You will read about a field artillery battery that is fully prepared and warned and well trained and see what happens to their ability to conduct a fire mission if they are encumbered by their chemical gear and if they are then subjected to the receipt of contaminated ammunition being sent forward from positions that have been attacked or in convoys that have been attacked with chemicals.

We described four little stories about air bases and other air installations and how they would react to chemical attack.

The same thing at sea. Naval bases on shore, aircraft carriers at sea, and so forth, and a description of what we think would happen if they were subjected to chemical attack.

The conclusions that we came to, Mr. Chairman, are that we do need more and better intelligence of Soviet capabilities, of the Warsaw Pact capability and the capabilities of other nations of the world because the use of chemicals is not limited to the Warsaw Pact. We know that the Iran-Iraq War has seen occasions of chemical use. If our troops are to be deployed anywhere on a combat mission, they must be prepared for enemy use of chemicals against them.

We believe that the Soviet qualititative and quantitative chemical advantages translate into a very significant military advantage.

I repeat the conclusion that we came to when we studied the advantages and disadvantages. As Soviet commanders, we would inform our superiors that we would be militarily foolish not to employ these weapons if we go to war because NATO forces generally are unprepared and incapable of matching our chemical effort.

Now, it was a year and a half ago that we came to these conclusions and we are all gratified with the progress that has been made in the past year and a half. Nevertheless individual protection will still be limited, detection and warning will still be inadequate. The 5-year defense programs presented to us a year and a half ago will not correct these conditions. Protection will be limited and detection will be inadequate even at the end of 1989.

I am not privy to any changes made in the 5-year defense program in the past year and a half, therefore, I would ask that you reserve questions concerning improvements made for those who are on active duty today.

Retaliation for all practical purposes is nonexistent. There is no militarily significant way that we can employ that which we have available in our stockpile in a land war trying to defend the borders of NATO.

DOD programs are inadequate. I mention the fact that if we go through the 5-year programs as they were presented to us, the continued battlefield asymmetry will exist in 1990.

Then we come to what is a major finding of this study group. Modernization of our equipment, modernization of our forces lacks balance. Our forces are engaged today in research and development and procurement of items of equipment that will improve our surveillance capabilities. We can find the enemy much better on the battlefield and much deeper into his own territory. We will have communications which can transmit that information to commanders who need it. We will have weapons of increased range and increased lethality. We have the Army engaged in adopting new doctrines which add mobility to their forces and which increase the area over which Army forces will be able to operate.

All of those things are more or less hostage to the lack of a modernization plan for our chemical capability. The greatest lack we have is that we do not have any retaliatory capability which can subject the enemy to the same kind of degradation of his combat capabilities as we would suffer.

Finally, we believe that the nuclear threshold is lowered by our lack of chemical retaliation capability.

I mentioned earlier that the options for the NATO commanders are quite limited or become more limited as the pace of operations increases. As enemy forces exploiting those breakthroughs become mixed and intermingled with friendly forces and with civilian population, the options for employment of nuclear weapons is certainly countered by the location of targets.

We believe that this is one of the gravest problems that faces the NATO commanders if they are attacked by an enemy, supported by chemical weapons.

Our final statement here: "The NATO posture today almost invites Warsaw Pact use," is corollary to the statement that they would be militarily foolish not to use it.

Mr. Chairman, our study group acknowledges and respects the 1969 moratorium and the high ground that we seized when we made that declaration. But we have not attracted other nations to that high ground and the moratorium will not guarantee nonuse on the battlefield, it will not protect soldiers on the battlefield or airmen at the air bases or in the skies. It will not protect naval forces and it will not negate the tactical advantages of an enemy who decides to employ chemical weapons. To a man in our group we wants nothing more than deterrence of chemical warfare, deterrence that we have enjoyed since the end of World War I. No American troops have been subjected to chemical attack since World War I ended.

The military commanders who were involved in this study advocate nothing more than a continuation of deterrence. We feel that the advantages of using chemicals disappear very rapidly when each side has the capability to respond and thereby to degrade equally the combat effectiveness of the opposing forces. We believe also, to a man that the single and most important factor is our inability to retaliate. We are in support of the binary munitions program primarily because we need a retaliation capability, but also because the increased safety and the reduced hazards of storing and handling that are associated with the binary munitions.

Mr. Chairman, that completes my briefing. Unless my colleagues detected something that I omitted, I would entertain questions, sir.

Chairman GOLDWATER. Thank you very much, General Kroesen.

BETTER INTELLIGENCE NEEDED

You mentioned the need for more and better intelligence. The intelligence family admitted to the Intelligence Committee that even though what they were able to offer us was extremely frightening, they did not know what they would like to know about the potential enemy's ability to not only use chemical weapons, but what those weapons might be.

In case my colleagues on the committee are not aware, there is a large chemical factory in Iraq and we can discuss that anytime you want to.

The quality of the Soviet chemical effort is a matter I don't think we can over emphasize because, as you brought out, we do not have all the intelligence we would like to have on it. I don't think it is possible to get all the information on chemical weapons we need but I remember hearing stories about those weapons that are totally outside the grasp or thinking of even the average man in uniform today. They possess chemicals that need not be inhaled, that cannot be detected, and that cannot be protected against by any known protective suit that we have.

Those are the frightening things that scare the daylights out of me and I think they will likewise scare the American people when they begin to realize the seriousness of the threat. We are no longer talking about mustard gas, we are talking about the ability to debilitate the mind, to make a man or a woman totally incompetent of making a coherent judgment or even performing rationally.

Then I think the last piece that I hope your other panel members will certainly discuss, and I feel they will, is the fact that our defense is really not very effective.

I have taken the trouble to wear one of these uniforms and I would hate to be asked to go out and perform any function in war wearing that clothing. I expect if I wanted to lose another 30 pounds, that equipment would do the trick. But I would not expect to be able to perform my duties and at the same time feel protected against a chemical attack.

If the rest of you two, General Dixon or Admiral Kidd do not have any statements, I will turn it over to Senator Thurmond who might have something to say.

Senator THURMOND. Thank you very much, Mr. Chairman.

I would like to associate myself with the remarks that you have just made.

We want to welcome these distinguished speakers here today. It is a pleasure to have them here and to receive their testimony.

I might say that no weapons bring such emotional debate as the subject of chemical weapons. In 1969, the United States halted production of chemical weapons and this unilateral action on our part was thought by many to be a bold first step in control of these terrible weapons.

Unfortunately, it may have been the first step to allow the Soviets to possess a capability that could enable them to achieve certain objectives that they could never obtain with nuclear weapons.

There are many opponents of binary weapon production who are willing to spend money on defensive measures such as protective gear and chemical detection equipment, but utterly opposed to building a credible retaliatory capability.

If we followed that same logic, we could spend our time building fallout shelters rather than building more nuclear weapons.

Mr. Chairman, this committee has supported production of binary weapons in the past and you have expressed a great interest in this issue. I am very pleased you have a letter from the President here on that subject and I am glad that you brought out the points you did just a few moments ago.

I hope that we can work in a bipartisan way this year for approval of production funds for these weapons. I really feel we should not delay. The chemical weapons might be the difference between whether we win a war or not.

POTENTIAL DAMAGE OF SOVIET USE OF CHEMICAL WEAPONS ON LARGE SCALE

General Kroesen, what would happen to the civilian population in Europe if the Soviet Union were to use chemical weapons on a large scale?

General KROESEN. Senator Thurmond, if chemicals were used against a civilian population, they would be in the unwarned and unprepared category that I spoke of earlier. There is no question that results would be devastating to them, that there is no practical protection for the civilian population today.

Senator THURMOND. How would you respond to an opponent of binary weapons who wants to spend money only on defensive measures?

General KROESEN. Sir, there is no defensive measure, barring the discovery of some magic serum that gives immunization to all soldiers, airmen and sailors, there is no defensive measure that alone can do anything more than delay the success of the enemy, not prevent it.

In other words, if they are launching a campaign and using chemicals in support and we have only defensive measures to employ, even if our defenses become better, we delay the success of their operation, but we do not prevent that success.

We found no defensive measure that was significant other than as a survival means for the forces and the survival of the functioning of headquarters and rearm and refuel points, and so forth.

Senator THURMOND. You heard what our distinguished chairman just said about some of these weapons being so dangerous that there is no equipment that can be used to defend against them.

Are you familiar with those weapons and do you have any comment on that?

General KROESEN. Sir, our study group was familiar with the fact that the Soviet Union has a capability to attack the nervous system, the respiratory system, the blood system of troops in the field with weapon agents that are now available to them.

Whether we know everything that is now known, whether we knew everything a year and a half ago that is now known in regard to those agents, I am not sure, but we certainly came to the conclusion that the threat is dire and that there are tremendous improvements required in our defensive capabilities, in our defensive means.

CHEMICAL WEAPONS AND WORLD WAR II

Senator THURMOND. In World War II I am confident the enemy would have used chemical weapons if they had not known that we had chemical weapons. They knew we had chemical weapons; therefore, they did not use chemical weapons against us.

Do you agree with that.

General KROESEN. Yes, sir, I do.

Senator THURMOND. So, isn't it a matter of fact that if we want to avoid a war involving chemical weapons, the best deterrent is to have chemical weapons ourselves so that they know if they start it, we are prepared to give them the same medicine?

General KROESEN. That is a conclusion we came to in our study, yes, sir.

CHEMICAL ATTACK

Senator THURMOND. General Dixon, if the Soviets wanted to attack our NATO airfields and colocated operating bases with chemicals, how many of them could they successfully attack?

General DIXON. We estimated, Senator, that they could attack all major installations simultaneously. Whether that capacity would be 30 bases or 36 bases is relatively immaterial.

They can attack enough of them to severely hamper and to eventually cripple the force. There is no shortage of munitions or delivery agent.

Senator THURMOND. From the study you made you reached the conclusion that they could attack all of our bases; is that correct?

General DIXON. All significant bases, all bases of any real significance.

Senator THURMOND. General Dixon, what would happen to our ability to reinforce Europe if these bases were attacked with persistent chemical agents during the time we were trying to deploy to our co-located operating bases?

General DIXON. You certainly would have a terribly difficult time putting a stream of airlift replacements on bases which are under both chemical and conventional attack.

You could, in effect, stop a stream of reinforcements in Europe by simply rendering the off-load points untenable and it would be from a Red commander's standpoint a simple and relatively economical operation. It would not require physical occupation of the off-load bases.

It would simply require intermittent, continued chemical attack using missiles and/or aircraft. You would have the civilian work force that loads and unloads airplanes in an absolute state of frenzy, you could cause total and complete stoppage.

Senator THURMOND. If we had a war, for instance, in NATO, we would have to send troops and equipment and everything to these co-located bases, would we not?

General DIXON. Yes, we would, sir, and to ports, aerial ports and seaports which would be unusable.

Senator THURMOND. If they used those chemical weapons on those bases and on those ports, then it would make it impossible for us to use those bases to land our troops and assist in fighting the enemy?

General DIXON. Yes, it would.

ATTACKING NAVY FLEET WITH CHEMICAL AGENTS

Senator THURMOND. Admiral Kidd, how would the Navy accomplish carrier operations if the fleet is attacked with persistent chemical agents?

Admiral KIDD. The use of chemicals at sea has been worried about and discussed for a long time. But, fortunately, the mobility of ships has permitted navies worldwide to say, well, we will whistle up a wind and get on the right side of the wind from the attacker and be home free.

But with the advent of persistent agents, sprays, liquids, coupled with the fact that you don't know when they are coming, once injected into the circulating system of the ship, decontamination becomes extremely difficult, time-consuming, and, in some instances, impossible.

So, if you get close enough with a weapon, cruise missile, aircraft spray, projectile, and the contents of the in-bound vehicle are introduced, sir, into the air-conditioning and air circulating system within a ship, if the ship is not buttoned up beforehand, everyone on board is vulnerable and the ship stops.

Senator THURMOND. In the letter from the President to our distinguished chairman he stated:

> The asymmetry we face with the Soviet Union necessitates that we act now with determined bipartisan support on this very critical defense issue. I assure you that regaining a chemical warfare deterrent is high among the priorities of the administration, and I pledge vigorous efforts in pursuing this objective.
>
> We wish that an agreement effectively abandoning chemical weapons could be reached with the Soviet Union at the current meeting of the Committee on Disarmament in Geneva.

BANNING CHEMICAL WEAPONS

Would it not help us to get an agreement to ban chemical weapons if we had chemical weapons ourselves?

Admiral **Kidd**. I think that the President's initiative is most admirable. Would that I felt that I could trust them to that degree.

I would be much more comfortable if I had in my magazine a capability to retaliate in kind, which we do not have now. They are the bully on the block who's record for the last many years has been quite consistent; he closes the rule book which he has signed up to and begins playing by his own rules when it suits his purpose and when he thinks he can get away with it. He has been 100 percent consistent on that.

Yes, sir, a ban is indeed an admirable first step, but in no way, shape or form is it a proper substitute, in my humble judgment, for pressing on with the binary weapon. That keeps a bully honest and in his cage.

Senator **Thurmond**. Would not the enemy be more encouraged to ban chemical weapons if they knew we had chemical weapons?

Admiral **Kidd**. I would certainly think so, absolutely.

Senator **Thurmond**. My time is up. Thank you very much.

Thank you, Mr. Chairman.

Chairman **Goldwater**. Senator Hart?

Senator **Hart**. Thank you, Mr. Chairman.

PROTECTIVE GEAR AGAINST CHEMICAL AGENTS

General, there has been a great deal of discussion this morning on both sides of the table about the difficulty of operating in a combat environment wearing protective gear.

Is it not also the case that in order to use chemical agents our own forces would be required to wear that gear?

General **Kroesen**. Yes, sir, that is true. However, by selective and judicial use of agents, persistent, nonpersistent, semi-persistent agents, and selection of the areas in which they are employed, you can force the enemy into that great encumbrance while your troops can go either lightly encumbered, gas mask only, or perhaps with nothing at all, because you have used the nonpersistent agent which dissipates in 15 minutes and they are free and clear in their offensive operations.

Senator **Hart**. The proposed binaries are persistent agents; is that not the case?

General **Kroesen**. I am not competent technically to say what kinds of agents would be placed in the binary round, but I believe both persistent, nonpersistent and semi-persistent are possible and probably in the plans.

Senator **Hart**. Are you or any of our other witnesses prepared to tell us what the administration proposes to put in the binary weapon?

Mr. **Welch**. Yes, sir, all three will be put in the munitions systems that will be proposed.

Senator **Hart**. So, as a battlefield commander, you would contemplate a situation in which we might deploy and use chemical agents without fully protecting our own forces; is that correct?

General **Kroesen**. I don't think that is a correct statement.

I would certainly protect them fully anytime they were at risk in a chemical environment. I believe that you can create the kind of temporary chemical environment which gives you a tactical advantage over the enemy which does not know how temporary or how soon you might reattack with the same kind of weapon.

Senator **HART**. Clearly, the nature of the environment, the conditions of the climate would have extreme importance in a decision whether to use chemical agents or not? Is that not correct?

In other words, you don't want chemical agents blowing back on your own forces?

General **KROESEN**. That is true.

Senator **HART**. Predictable prevailing wind is what I am trying to get at.

General **KROESEN**. I would go further than just predictable prevailing wind. You certainly would know the exact wind conditions when you did employ chemical weapons.

Senator **HART**. Is it not also the case that the Warsaw Pact forces or Soviet forces would themselves, if they were to deploy and use chemical agents, have to partially or fully protect themselves?

DEGRADED COMBAT EFFECTIVENESS

General **KROESEN**. Yes, sir, they would under the same conditions that I mentioned. They could be selective and they could force you into your degraded combat effectiveness and yet they would not be subject to the same degradation.

General **DIXON**. The problem is that at the moment the Soviet Air Force can load and use chemical weapons and never put on a suit or a mask because there is no indication or capability on the side of the NATO nations to put them at risk.

That is to say, we will be in our suits and our masks and they will not because they know we are not able to attack them.

If we end up with a circumstance in which we are both in our suits, then I hope we would both come to the same conclusion we have with conventional and nuclear weapons, there is no use playing that game.

Senator **HART**. I believe the Soviet Air Forces is not going to gas its own troops. In other words, Soviet land forces are going to have to be prepared.

PRIOR WARNING OF CHEMICAL ATTACK

Would we not have prior warning that the Soviet or Warsaw forces were disseminating protective gear and putting it on?

Your principal scenario presumes a surprise chemical attack where the NATO and American deterrent has failed, presumably both conventional and nuclear, and that the Warsaw Pact forces have crossed the Rhein, occupied the Federal Republic of Germany and Benelux countries and they would then start using these chemical agents.

How likely is that scenario?

General **KROESEN**. I am not sure I would describe that scenario in those terms. I would say that we as Red commanders tried to figure out how we would employ chemicals to our best advantage in launching a campaign to conquer Western Europe. We did that at the initiation of hostilities.

We did not believe at that time that we would catch the NATO command completely unwarned and unprotected. We know that when NATO forces deploy to their combat sectors that they go prepared for chemical warfare.

We believe that the Soviet forces would be equally equipped, but would not necessarily have donned their equipment. If they can be selective in the use of that weaponry, they can launch their offensive in certain areas without a complete encumbrance of their forces, even though that gear is carried along by their vehicles, carried along by their trains, so that if necessary, they can go into that gear, and we do believe that is the logical scenario that we portrayed in our study.

Senator **Hart**. One final question.

EMPLOYMENT OF CHEMICAL WEAPONS IN EUROPE

Do all you gentlemen and those you represent conclude that a new generation of chemical agents, chemical weapons, will be effective as a deterrent regardless of where they are deployed, or do your conclusions presume the employment of these weapons in Europe?

General **Kroesen**. We did not address the question, sir.

Senator **Hart**. What is your personal opinion?

General **Kroesen**. If I were a policy decisionmaker, I would certainly press for the deployment of these weapons, a replacement system that removes the unitary rounds from Europe and replaces them with binary of all kinds, and I would certainly deploy the delivery means for all of those weapons.

Senator **Hart**. Do you have any knowledge as to whether or not the administration has in fact pressed our NATO allies in Europe with that kind of replacement program?

General **Kroesen**. Sir, I do not.

Senator **Hart**. Mr. Chairman, could I ask that any future witnesses representing the administration provide to the committee, if we don't already have it, the amount of money spent on defensive protective gear over the past 4 years?

Chairman **Goldwater**. These witnesses do not represent the administration.

Senator **Hart**. That is why I said any future witnesses representing the administration.

Chairman **Goldwater**. It is not much.

Senator **Hart**. I also would like to introduce a brief statement for the record.

Chairman **Goldwater**. We will be glad to put it in.

Senator **Hart**. Thank you very much.

[The information follows:]

Prepared Statement by Senator Gary Hart

Mr. Chairman, I oppose the production of a new generation of binary chemical weapons because its not evident they will make this nation or our allies more secure.

The United States already possesses a chemical arsenal which more than meets our essential military requirements. We can already respond vigorously to any chemical attack. There is simply no need to produce weapons which would duplicate our existing capabilities.

Many people have expressed concerns about the Soviet acquisition of a significant chemical weapons arsenal. Those concerns are well justified because our forces are not sufficiently prepared to defend themselves against a chemical attack. Therefore, our best deterrent against a Soviet chemical attack would be better defensive capabilities—not more offensive chemical weapons of our own.

Efforts to improve our defenses against a chemical weapons are vital. Our troops will remain a target for an attack until they are as well trained and equipped to fight in a contaminated environment, as are the forces of the Soviet Union and the Warsaw Pact. Defensive measures are the key to eliminating any incentive an adversary might have to use chemical weapons first in combat. I urge the Reagan administration—and specifically the Department of Defense—to place the highest priority on the improvement of American capabilities to detect a chemical attack and to protect our forces from the effects of chemical weapons.

More chemical weapons would do little to strengthen American security. Because of the opposition of our allies to these weapons, chemical arsenals world have to be stored far from the European theater—too far to make a timely contribution to our military efforts.

There has been disturbing evidence that the Soviets have used chemical weapons in Afghanistan and South East Asia. But we must keep the issue clear. No American weapons procurement program—including the acquisition of additional chemical weapons—will prevent the Soviets from using their arms against the Afghani people.

In light of the need to maximize our scarce defense resources for urgent security requirements, Congress must ensure that all defense expenditures are essential to our national security. The production of new binary chemical weapons does not meet that requirement. Efforts to improve our defensive capabilities against chemical attack do.

Chairman Goldwater. Senator Cohen?

Senator Cohen. Thank you, Mr. Chairman.

I missed the opening statement, but is this mask the sum total of what we have today in the way of protective equipment?

General Kroesen. No, sir, we did not address that piece of equipment. It will be discussed by later witnesses, not by us.

CHEMICAL DEFENSIVE EQUIPMENT

Senator Cohen. I am going to follow up on a question Senator Hart asked in terms of what we are doing in the way of defensive equipment because we do have a serious problem over in the Persian Gulf area.

No matter what we are developing in the NATO scenario, a very hot climate presents a much different problem for us. I am wondering what sort of progress we are making in the kind of defensive equipment that will be necessary, and whether or not it is going to have to be fairly diverse in its application? You can't design one set of chemical defensive equipment and hope to apply it on a worldwide basis. And, second, what, in your opinion, would constitute a chemical weapons force that would be sufficient to ensure a deterrence against a Soviet chemical attack?

What are we talking about? How much is enough is what I am asking.

General Kroesen. Let me address the land systems and then ask General Dixon and Admiral Kidd to discuss air and navy.

In the land systems we need delivery capability that can reach far beyond what we are now capable of and that is the range of the 155-millimeter howitzer. We need a rocket system such as the MLRS or Lance or some new capability to attack long-range targets that the land forces are now able to locate and identify.

We would be satisfied with a certain percentage of the basic loan being made up of chemical rounds which can be made lethal by the addition of one of its binary elements at a time that authority to employ chemical weapons is released to the commanders in the field.

Senator COHEN. Is it a question of the delivery system or is the issue the lethality of binary versus unitary chemical weapons? Is there greater lethality in a binary system than there is in a unitary?

General KROESEN. No sir, there is not. There is no difference in the lethality. There is only difference in the safety for your own troops in the handling and movements of those munitions and safety of the surrounding area in which they are stored.

Senator COHEN. To the extent there is a debate, it should not really be focused on the binary introducing a new level of lethality or toxicity opposed to where we are today?

We are talking about safety in handling and safety in delivery? That is the major and perhaps the only difference we are talking about.

General KROESEN. Sir, in my opinion, one of the points that has not been stressed sufficiently is that the program to produce the binary munitions is a program to eliminate nerve gas. There will be no nerve gas in existence in U.S. stockpiles or with U.S. troops if you buy the binary round.

It never becomes nerve gas until it is fired from a cannon purposely or dropped in a bombing purposely. It serves to eliminate nerve gas as one of the major objectives of this program.

Sir, I did not let General Dixon and Admiral Kidd talk about air and naval weapons that we think we need.

SOVIET CHEMICAL CAPABILITY

General DIXON. I was relieved and hoped you would go by the question of how much is enough because I don't know. I don't know anyone else who does either.

Yesterday the Chairman of the Joint Chiefs of Staff estimated the Soviets have somewhere between 20 and 50 times our capability. He meant all services, of course.

I don't know what a good estimate of their air capability is, but ours is zero to all intents and purposes. How much more we need to raise that threshold to a point where a sensible enemy would say that is not a game I can win, or not a game it is apparent to me I can win, I don't know what the numbers are, but we require a credible offensive deterrence.

Senator COHEN. Delivery system?

General DIXON. That is right, system and weapons, yes.

Senator COHEN. Are there any inefficiencies associated with binary weapons as opposed to unitary systems?

General DIXON. I am not aware of any. There may be.

Senator COHEN. General?

General KROESEN. That is a technical question that you will have more qualified people to answer.

Senator COHEN. As I understand it, last year, Mr. Chairman, the Defense Authorization Act required the President to establish a Chemical Warfare Review Commission.

Did any of you take part in that Commission?

General KROESEN. I did not.

General DIXON. I did not.

Senator COHEN. They were supposed to report to the committee by April 1 of this year. My understanding is that no such commission has been formed yet.

General DIXON. I am not aware of any.

Senator COHEN. Our request in the report was that they form a commission and come back to us by April 1 of this year, which would have been helpful in discussing this during the authorization process.

My understanding is that the commission has not yet been formed. Why, I do not know.

The GAO last year, in October 1984, issued a report suggesting that the Bigeye weapon was premature because of some technical difficulties.

Are any of you gentlemen familiar with it?

General DIXON. I am familiar with it, but I am sure there are people here, sir, who are firsthand familiar with it.

Senator COHEN. Then I will defer further questions.

Thank you, Mr. Chairman.

Chairman GOLDWATER. Senator Bingaman?

Senator BINGAMAN. Thank you, Mr. Chairman.

DEFICIENCIES IN INTELLIGENCE

You indicated earlier we have some real deficiencies in our intelligence, as I understood your comment, about the extent of the production or availability of the weapon to the Soviets.

Could you be more specific as to what information we do not know that you think we should know?

General KROESEN. Sir, I think I ought to defer that question to a closed session, if I might, because I am not really familiar with the classification associated with intelligence information that you are asking for.

Senator BINGAMAN. OK, that is fine.

Did your group make any recommendations for correcting the deficiency in the intelligence?

I haven't had a real chance to read your report, I just got it this morning, but do you have specific recommendations in that regard as well?

General KROESEN. Only in the sense of raising the priority and directing the interest of our intelligence collection system.

We did not make specific recommendations about the kind of intelligence gathering that should be accomplished.

CHEMICAL WEAPON CAPABILITY

Senator BINGAMAN. To shift to a different line of questions, how would you see the development of this chemical weapon capability that you are supporting here?

How would that interact with potential biological weapon problems that we might be facing?

I notice the gas mask that we have in front of us is both chemical and biological.

General KROESEN. Yes, sir. We think that there is a direct relationship and we believe that it is a question that should be inquired into in much the same way we did our study of chemical weapons and chemical capability.

We were specifically enjoined not to address biological weapons. We kept the scope of this study limited by not addressing biological or nuclear weapons in the study itself.

Senator BINGAMAN. Then you don't have an opinion as to whether, if the Congress were to go along with the proposal that is being made in the chemical weapons field, that would provide us with an adequate retaliatory and defensive capability with regard to any threat we might face in the biological weapons field?

That is a separate problem. Maybe you have a view on that.

General KROESEN. That is a very separate problem as far as I am concerned right now when we talk about what we studied.

I am not a student of biological weapons or the application of biological warfare. Not having incorporated that in this study, I don't have any opinion that I want to express.

Perhaps my colleagues do.

Senator BINGAMAN. If anybody does, go ahead.

General DIXON. The track you are headed down brings to mind the conversation that the two of us had this morning. It was an estimate, an opinion.

At some time in the not too distant future you will be addressing the biological subject in much the same mode you are now addressing the chemical subject.

Senator BINGAMAN. So, I gather that your thought is that developing an ability to retaliate in the chemical weapons field does not in any way solve the problem of deterring the Soviets from pursuing some kind of biological warfare?

General DIXON. It is not clear to me that it does, no, sir.

NATO RETALIATORY POLICY

Senator BINGAMAN. Let me ask about a statement on page 15 of your report.

> The current NATO retaliatory policy, calling for nuclear response to prevent imminent defeat, is suspect under conditions of chemical warfare.

You discussed that some in your presentation, but I am still not clear.

Are you suggesting there that the NATO ability to retaliate with a nuclear response is not secure under the circumstances that we find ourselves in, we would find ourselves unable to respond with nuclear weapons because of a deficiency in chemical weapons? Is that what you are saying?

General KROESEN. What we believe is that if we are right about the pace of operations, if the breakthrough occurs more rapidly, if the exploitation is available to the enemy sooner, that we are going to have NATO commanders faced with enemy forces in their rear areas intermingled with our own forces and with the civilian population.

Given that kind of situation, the targeting for tactical nuclear weapons—by tactical I mean those short-range weapons that are employed by Army forces on the battlefield—targeting for those artillery pieces will be much more difficult and may be even precluded.

Now, the question of what targets to strike with nuclear weapons and still have a significant effect on the location of the line of contact and location of enemy forces is one that becomes much more difficult for the NATO commanders.

We did not wrestle with that kind of targeting. We did not get our study beyond the first 3 days of war, when, if nuclear weaponry response was contemplated, it had not yet taken place. But we see a tremendous difficulty associated with employment of nuclear weapons if you deduce that enemy progress is going to be such that he is facing you with major successes deep in your own rear.

Senator **BINGAMAN**. So, your conclusion is that the option of going to nuclear weapons as a response is in some way precluded to the extent that the enemy gets deep into your country and intermingles with the civilian population?

Is that the conclusion you have reached?

General **KROESEN**. We think that option must be taken much earlier under those conditions in order for you to have targets which are significant in the battle area, ground troop battle area. That is why we say the nuclear threshold is lowered.

Now, when we consider the requirement for release of those weapons and we talk about the pace of battle being increased as we foresee it might be, the question of targeting for those tactical weapons is one that becomes very difficult. Although the nuclear threshold has been lowered in effect because we have said you must use them earlier if you are going to use them tactically, we worry about the kind of progress being such that we don't have targets for tactical weapons; at that point commanders would have to think about striking deeper and finding other targets that are significant to the ongoing battle, in effect a step in the escalation of nuclear war.

Senator **BINGAMAN**. That is all I have, Mr. Chairman. Thank you very much.

Chairman **GOLDWATER**. Thank you very much.

Senator Quayle?

Senator **QUAYLE**. Thank you, Mr. Chairman.

WARSAW PACT VERSUS NATO RE CHEMICAL WEAPONS

General Kroesen, you have described the tremendous disadvantage that we have, Warsaw Pact versus NATO, in the chemical weapons area.

I was not here for all your testimony, but has this gap widened in the last 3, 4, or 5 years or has this been a slow incremental evolution over the period of the last 15 years?

In other words, have the Soviets really seen a weakness in the west in the last 5 or 6 years and begun to accelerate some of their development and possibly deployment, war planning capability, strategy, et cetera?

Do you have any idea or have you looked at that issue very closely when they have really pushed this thing forward with this gap?

I presume this gap is wider today than it was 5 or 10 years ago. Is that correct?

General KROESEN. I would say we believe it is wider than it was 5 years ago. That is primarily from the deterioration of our own offensive strike capability rather than from exploitation or acceleration of their potential.

Now, we do believe that they have had a continual attention and development process for most of their chemical agents and their chemical delivery means and that they have not in any way reduced that effort because of our moratorium.

Senator QUAYLE. Have you noticed in any of their strategies or war-planning capabilities, has that changed where they are going to rely more, or are we seeing an increase in availability to use in their war contingency plans chemical weapons?

Have we noticed this?

General KROESEN. I can't answer that, sir. You must ask the intelligence people that question.

SOVIET DOCTRINE RE CHEMICAL WEAPONS

What we addressed was their doctrine. Because their doctrine indicates that the normal basic load of ammunition that accompanies an artillery battalion will include a certain percentage of chemical rounds, we believe they intend to employ them.

Senator QUAYLE. Has their doctrine changed in the area of chemical weapons in the last decade?

General KROESEN. Not to my knowledge.

Senator QUAYLE. How would you assess our intelligence capability in this area of chemical weapons to find out what the Soviets are doing, having any kind of forewarning?

From your perspective, do you think this is a high priority in the intelligence community? How would you describe that?

General KROESEN. Our report indicates that there are large gaps in our intelligence and that the priority and interest of the intelligence community was not what we thought it should have been for 15 years.

But we believe that since we got our initial briefing there has been a change in priority and a change in the attention of the intelligence community to this subject.

Senator QUAYLE. What was the change in their attention to this subject? What startling facts or revelations were made to them that changed their prioritization?

General KROESEN. I really can't answer that, sir. I don't know.

Senator QUAYLE. Do you have any idea?

General KROESEN. I would say that the Defense Department's attention to the subject when they directed this study be made also caught the attention of the intelligence community.

Senator QUAYLE. There has been some discussion of the threat of the Soviets using chemical warfare using their short- and medium-range ballistic missiles.

Did you look at that and assess our vulnerability to that? Is that a possibility that the Soviets might use their short- and medium-range missiles and to deliver these chemical weapons?

General **Kroesen**. We believe they have chemical warheads for all their missile capabilities, short- and long-range. We believe there is a threat to the entire continent of Europe with the ranges that they have for the chemical weapons which we were informed of, and that they would be able to use them from the eastern borders of West Germany all the way to the channel coast and to the Mediterranean.

SHORT- AND MEDIUM-RANGE BALLISTIC MISSILES

Senator **Quayle**. If they have the capability and are prepared to use the short- and medium-range ballistic missiles, then I would say that is a fairly strong vulnerability.

We don't have, to my knowledge, a terribly good defense against that. We are going more in the offensive direction and trying to get a reduction.

Would you describe that as a fairly sensitive area of vulnerability if in fact they are going to use these missiles for possible deployment of the chemical weapons?

General **Kroesen**. We think that is a very grave vulnerability, yes, sir.

I would ask General Dixon to address that.

Senator **Quayle**. Do you want to add to that, that the fact of possibly moving in this direction might be another reason to look at defensive capability against ballistic missiles on a tactical basis?

General **Dixon**. Our conclusion within the vision we have and within our understanding of what is achievable that the defensive capability obtained is to prevent the use of chemical weapons in the same style as you hope to prevent the use of conventional and nuclear weapons, by having a capability that says don't do that, it is too painful.

As opposed to purely hoping you can defend against incoming missiles, I would prefer that the Soviets be convinced of the futility of launching it.

Senator **Quayle**. Your reliance would be more on the offensive counterforce and retaliation after that?

General **Dixon**. I would rather deter them and not have to go through this bloody agony.

Senator **Quayle**. Of course, there are different ways you can deter, offensively and defensively. That is one of the questions we are going to be discussing here, not only this issue, but other issues as well.

General **Kroesen**. I would like to address that again, sir.

We came to the conclusion that no defensive measure has any significant effect on the ability of the enemy to have success on the battlefield, barring a discovery of some magic serum that would immunize all personnel.

Senator **Quayle**. I am looking at it in a different context than on the battlefield.

If you are looking at a threat from the short-range ballistic missiles, defensive capability might be a possibility. I am not saying that alone, believe me. You have to have modernization for a number of reasons, safety being one of them.

I think this gap we have and deployment issue, where we are going to deploy them, are other factors that we can take up at a different time.

General **Kroesen**. Our study says we have to have better individual protection, better collective protection, better detection and warning systems than we have now, and the capability to react almost instantaneously to an attack on an air base is one of the things that we have to be prepared to cope with defensively better than we can today.

Senator **Quayle**. Almost the entire discussion so far has focused on Europe, NATO-Warsaw.

THREAT OUTSIDE OF EUROPE

What kind of threat do you see, generally speaking, in areas outside of Europe, where they were actually deployed, Iraq, Southeast Asia?

There have been reports in the past perhaps there might be a problem in Central America. General Gorman said yesterday he did not see a real problem with that.

How would you assess this threat outside of NATO? Are there any particular high points you think are sensitive or vulnerable?

General **Kroesen**. Our study was limited to a NATO scenario.

My personal opinion is that I wouldn't deploy U.S. forces anywhere in the world against either a guerrilla or conventional-type force without assuring that they took their chemical gear with them in order to survive in a chemical environment because I believe the potential for use of chemicals by other nations is great as proved by the use in the Iran-Iraq war, and I believe the use in Afghanistan and Southeast Asia as well.

Senator **Quayle**. Thank you, Mr. Chairman. I would like to submit the following information for the hearing record.

[The information follows:]

Biochem Warfare: A Warning

(By Joseph D. Douglass, Jr.)

For decades, the world has almost closed its eyes to Soviet chemical and biological warfare interests and activities. Even the recent Yellow Rain in Afghanistan and Southeast Asia and the anthrax "accident" at Sverdlovsk, USSR, have had little effect. About the only response has been calls from the left for better arms control treaties, efforts that, while sincere, seem blind to what has been happening and only present an illusion of progress. And, while NATO has acted to improve its chemical defense posture, the efforts have been minimal and slow to develop.

Chemical warfare and biological warfare are distasteful subjects, perhaps even more so than nuclear warfare. In a sense, they are worse. While nuclear war is unthinkable to many, war with chemical or biological weapons is all too real a possibility. In fact, chemical weapons are being used, most recently in the Iran-Iraq war. They have been employed by the Soviets and their surrogates against military and civilian targets in Afghanistan and Southeast Asia, and in assassinations in London, Paris, Washington and several African cities. And, there are reports that the techniques are being incorporated into the arsenal of international terrorists.

All these and related prospects such as chemical warfare in Europe are serious, and are beginning to receive attention, but the counteractions are spotty. For example, biological weapons, sabotage, political use and use against civilian targets are rarely considered. Most defense measures deal with only the portion of the Soviet threat that is more than two decades old—weapons and agents such as mustard, tabun, sarin and soman—and little attention has been placed on new developments that the Soviets are believed to have been pursuing since the late 1960s.

These new developments in technology for chemical and biological warfare not only are cause for concern, but are reason for action. These developments elevate the problem from one of a tactical battlefield problem to one of strategic significance. The developments are not just evolutionary improvements; they are revolutionary. They already are being compared in significance to the development of atomic weapons.

The new developments result from the Soviet application of modern chemical and biological techniques, including genetic and molecular engineering, recombinant DNA and RNA and biotechnology.

In the process, chemical warfare and biological warfare have merged into what is being referred to as biochem warfare. With the new technologies, agents can be engineered to produce specific desired effects, both lethal and non-lethal, and to eliminate undesired characteristics. Manufacturing ease, survivability and enhanced deliverability can be designed into the engineered agents. Toxicity improvements of several orders of magnitude have been achieved and there are no toxicity limits in sight.

SOVIET EXPLOITATION INDICATED

In 1971, US Nobel laureate Joshua Lederberg expressed concern that "scientific breakthroughs of a rather predictable kind will be made and their potential military significance exploited." One possibility he mentioned was the "design and development of infective agents against which no credible defense is possible." Also in 1971, at a Communist conference in East Germany, the possibility of biological weapons incorporating bacteria and viruses of high virulence and having a modified antigen content was discussed. Maximum resistance to ultraviolet radiation and to antibacterial or antiviral agents and developing toxins with highly specific physiological and psychological effects also were talked about.

An East German scientist pointed out the potential of synthetic peptides and explained that "such synthetic toxins made up of eight to 10 amino acids can already be produced in the laboratory."

"The rapid development of biological engineering will make it possible in just a few years to produce synthetic or partially synthetic toxins on a large scale," the scientist continued. "Such toxin agents represent a combination of the hitherto chemical and biological weapons."

In 1976, these and related thoughts were incorporated officially into the new Soviet military encyclopedia:

Achievements in biology and related sciences (biochemistry, biophysics, molecular biology, genetics, microbiology, and experimental aerobiology) have led to an increase in the effectiveness of biological agents as a means of conducting warfare. Improved methods of obtaining and using them have resulted in a qualitative reexamination of the very concept of "biological weapons." . . . the boundaries between biological and chemical weapons are erased . . . bacterial toxins are now classed as chemical means of destruction.

Neurotropic toxins are toxic proteins which are primarily by-products of the life cycle of microorganisms. The neurotropic toxins are the most toxic chemical substances. . . . Under combat conditions they can be used as an aerosol or in a solid or liquid state in mixed elements of ammunition; they can also be used for sabotage purposes.

Soviet uses of agents that do not fit the traditional threat spectrum and that have powerful and specific results (large population area incapacitants) have been reported in Soviet exercise scripts and in test employments in Afghanistan (instant death or black rain). And beginning about one year ago, in response to warnings of several emigre scientists, six US specialists in intelligence, medical research, defense and national security studies began piecing the story together and grew alarmed at the obvious picture that was emerging. Incited by the prospects of a Wall Street Journal series titled "Beyond Yellow Rain" that was to appear beginning in late April, the CIA developed and published a special intelligence study on the subject. The study was reported in the media to have been sent to the National Security Council and to President Reagan in early February, implying confirmation of the seriousness of the potential problem and the availability of substantial supporting evidence.

Following numerous discussions with medical, chemical and biological scientists, it is clear that the advertised technology is indeed realizable. The claims, or fears, of what can be done, such as those in the Soviet quotes above and in the US defense analysts' studies, have not been exaggerated. While there is no open source "smoking gun" evidence on Soviet programs—nor is there likely to be—the indirect evidence is substantial.

There is a clear understanding of military applications that did not come from Western sources.

Numerous emigre scientists have testified that the Soviets are aggressively pursuing new biochem warfare capabilities. There is clear motivation and related program activities in the Soviet Union and East European surrogates.

There has been a substantial Soviet effort to hide their extensive R&D program and mislead the West via a sophisticated deception and disinformation program.

The possible implications are staggering, which may help explain why the Soviets have increased their effort each year since 1968 and have assigned the area top priority. This is also why strong and immediate counteractions by the Free World are essential. The problem is no longer merely a tactical European battlefield problem. Key targets are strategic and located throughout the rear and deep rear areas, with emphasis on nuclear delivery capabilities, command and control, political administration and government facilities, civilian support industries and top national security decisionmakers. Should a war situation emerge, substantial Soviet efforts should be anticipated in the threat period before open hostilities begin, including in "peacetime." Employing forces include enemy agents, co-opted and recruited agents and, in the hours or days immediately preceding direct attack, special sabotage units.

PROBLEMS OF COUNTERACTION

Soviet, other possible national and perhaps even terrorist efforts in biochem warfare are certain to be controversial. The Western military services will not want to divert resources from favorite conventional hardware programs to the biochem problem, especially because this problem extends well beyond the familiar domain of military facilities and regular military forces and operations. Even to give the problem visibility is undesirable, because of the inadequacies in current defense measures that are rapidly highlighted. The US State Department will prefer not to address the problem because it challenges the possibility of meaningful arms control in biological and chemical weaponry and raises additional and highly controversial problems of technology transfer. The intelligence community will shun the problem because it reveals the strong limitations on their capability to collect data from within the borders of the Soviet Union and because a strong Soviet biochem threat is not within the bounds of their institutional position on the threat. And, of considerable importance, the scientific community that has rightly questioned the Yellow Rain data from Afghanistan and Southeast Asia will object to any assessments of Soviet application of genetic engineering to biological and chemical warfare on the grounds that there is no firm scientific data to support the assessment. Probably their major motivation is that they do not want to see their art subverted and take on this insidious stigma of biological and chemical warfare, and all that accompanies that stigma—denunciations, pickets and protest marches, sabotage, regulation and security classification restrictions.

Finally, the conclusion that the Soviets have an aggressive biochem warfare program will be opposed by people from all walks of life, simply because they fear the consequence will be the renewal of offensive biologial weapons programs in the US, using all the modern biochem techniques. There is considerable validity in this fear. If the promises of the field include diseases for which no cures are known, lethal and incapacitating pathogens that can be covertly employed, and agents that confuse detectors and pass through masks and filters, then an offense may be the only defense, or rather, deterrent. This judgment, however, is premature. Too little is known about how severe the offensive challenge is or how well an aggressive defense program might rise to the challenge. The vast majority of efforts and capabilities remain dominated by out-of-date and pedantic points of view and bureaucratic interests.

TASK FORCE BEST ANSWER?

The best course of action probably would be to elevate the problem above these constrictions through the creation of a national-level task force with expertise in the sciences and threat assessment, and with a charter to examine all the evidence, including motivations and intentions, to assess vulnerabilities and to recommend courses of action. After an intensive 9- to 12-month investigation and analysis, such a group should be able to present an objective and informed view on the problem and recommend an appropriate course of action. Such a study could be of major value both to the bureaucracy and to the administration, independent of who wins the Presidency in November.

The Expanding Arena of Chemical-Biological Warfare

(By Joseph D. Douglass, Jr. and H. Richard Lukens)

IN BRIEF

Rapid scientific advance is yielding an ever widening array of deadly agents for the arsenals of chemical and biological warfare—a development with mounting and dire implications not merely for "formal" conflict but also the shadowy arenas of terrorism and covert operations. The evidence seems conclusive that the Soviet Union not only has already violated the conventions banning the use of these weapons, but is engaged in a large-scale program of their manufacture and stockpiling, while giving priority attention to the military application of emerging technologies, notably those in the new field of biotechnology. The vulnerability of the United States across the full spectrum of this burgeoning threat calls urgently for even those elementary measures of national defense that have thus far been ignored or neglected.

The threat to the United States that is associated with chemical warfare generally is cast in a by-now stereotyped scenario of a massive Soviet attack carried out by tactical missiles, artillery and aircraft in the opening phase of a conflict in Europe. Among the expected components of the Soviet chemical warfare assault are the mustards, phosgene, hydrogen cyanide, nerve agents and the newly identified mycotoxins of Yellow Rain notoriety. The presumed targets of primary concern are NATO military installations, force concentrations and transportation networks in Western Europe.[1]

This threat scenario is weighty enough and worthy of the serious attention that it has thus far failed to receive. Yet, there are other and, in some cases, more plausible contingencies of chemical and biological warfare that have been as badly neglected or deliberately ignored. These include terrorist attacks, sabotage, special operations, assaults on civilian and political targets, and "weapons systems" such as flechettes[2] and other instruments of assassination[3] and sabotage. Among the neglected weapons are biological agents, rapidly acting incapacitants, mixes of agents and, emerging ominously on the horizon and thus far almost totally unaddressed, the potential products of the rapidly expanding fields of biotechnology and genetic engineering.[4]

When all the somber prospects are arrayed alongside obvious U.S. vulnerabilities, the question of defenses against the variegated form of the threat assumes strident urgency. The following is an effort to illuminate the overall problem in all its existing and potential dimensions and to propose a start toward remedial action.

THE TERRORIST THREAT

The most immediate threat posed by chemical warfare today does not relate necessarily to a "conventional" U.S.-Soviet conflict; rather, it inheres in the rise of terrorism on a global scale. Over the past five years the United States has become one of the top three nations victimized by terrorist activities, with the U.S. military as the principal target. The range of the terrorist threat extends from the demented loner, through small organizations like the Armed Resistance Unit that bombed the U.S. Capitol in 1983, international terrorist groups like those responsible for the bombing of the U.S. Ramstein Air Force Base in Germany, to state-sponsored terrorists such as those who perpetrated the massacre of U.S. Marines and the bombings of the American Embassy in Beirut.

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[1] A good description of this chemical warfare threat is presented in the 1983 Department of Defense report, *Continuing Development of Chemical Weapons Capabilities in the USSR*, October 1983.

[2] *Anti-personnel Weapons* (Stockholm: SIPRI, 1978), p. 105.

[3] U.S. Congress, Select Committee to Study Governmental Operations with Respect to Intelligence Activities, *Intelligence Activities, Unauthorized Storage of Toxic Agents*, Volume 1 (Washington, DC: U.S. Government Printing Office, 1975), pp. 6, 17, 167.

[4] Soviet interest in the latter area was reported officially in Department of Defense, *Soviet Military Power*, Third Edition (Washington, DC: U.S. Government Printing Office, 1984), p. 73.

It seems merely a question of time before terrorists avail themselves of chemical and biological weapons.[5] Indeed, this escalation in terrorist warfare already may be underway. Thus, four hundred kilograms of organophosphorous compounds were seized in a terrorist supply store in Germany. A cell of the Bader-Meinhof gang was apprehended in the process of manufacturing botulism toxin in Paris. Do-it-yourself CBW handbooks for terrorists have begun to turn up. Organizations reportedly undergoing training in CBW include the PLO, SWAPO guerrillas in Southwest Africa and terrorists exiting from Yemen. The immense difficulties in defending against terrorist attacks with chemical and biological weapons waged without warning against U.S. military and civilian targets need not be elaborated here.

SOVIET SPECIAL OPERATIONS

In a conventional war scenario involving a Soviet attack, the most immediate threat may not be the massive use of chemical weapons by regular Soviet military forces. Rather, the prior danger may take the form of selective and covert biological and chemical strikes and actions aimed at disrupting NATO defenses before they can be organized to meet the full thrust of the attacking forces of the Warsaw Pact.

Once the main military offensive has been set in motion, such disruptive actions behind NATO lines would be intensified. The reference here is to Soviet special operations conducted by "forces of special designation," or "*spetsnaz*" forces.[6] Viktor Suvorov, a former *spetsnaz* officer, reports that the total number of Soviet *spetsnaz* troops may range between 27,000 and 30,000, while U.S. intelligence expert John Dziak estimates that another 20,000 East European personnel are trained in this role.[7] To these numbers must be added reserves, KGB special operations forces and teams of agents that have been infiltrated into target countries for specifically such missions. A Swiss intelligence source reports that 24 Soviet *spetsnaz* brigades are stationed in Central Europe, each with 600 men who can be fielded in 3- to 6-man teams.[8]

The attacks of these units would be directed at important military and political targets. The main *spetsnaz* missions were identified by Suvorov as (1) targeting the enemy's political and military leaders; (2) seeking out the enemy's nuclear facilities and either marking them as targets for Soviet aircraft and missiles or destroying them by independent action; (3) neutralizing command systems by actions against command centers and lines of communications; and (4) disrupting the enemy's power supply system, the most important objectives being power stations, oil and gas storage centers or pipelines, electrical power lines and transformer stations.

The first three missions identified by Suvorov could involve the use of biological and chemical weapons. They can be tailored for deployment against specific human targets and bases or facilities such as those that hold important military, political or administrative support functions. The actions can be waged covertly, with lethal or incapacitating effects. Indeed, it is the very surreptitious nature of the weapons that makes them ideal for employment before war is openly inaugurated with the direct assault by major military forces.

While U.S. and NATO military bases offer obvious targets for such attacks, civilian objectives may figure even more prominently in Soviet plans. In 1975 Soviet exercises reportedly called for the use of 24-hour incapacitants against Copenhagen to disable that city while its port facilities were seized.[9] Defectors have detailed Soviet plans to cripple the enemy's government administration through the use of chemical and biological agents on the eve of war. Chemicals and toxins have been used repeatedly against civilian targets in Afghanistan and Southeast Asia.

Given the reliance of NATO military forces on the political command structure and civilian support, such attacks by Soviet *spetsnaz* forces at the start of the war would seem to pose at least as serious a threat as the offensive by regular forces after the war starts. The endemic element of surprise in such attacks magnifies the problems in fending against them.

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[5] Neil C. Livingstone and Joseph D. Douglass, Jr., *CBW: The Poor Man's Atomic Bomb* (Cambridge, MA: Institute for Foreign Policy Analysis, 1984).

[6] "Warsaw Pact Plans for Invasion of West Described," *Paris Match*, August 14, 1971; Viktor Suvorov, "Spetsnaz, the Soviet Union's Special Forces," *International Defense Review*, No. 9, 1983, reprinted in *Military Review*, March 1984; and Bernard D. Kaplan, "War Scenario Predicts Soviet Rear-Area Tactics," *Baltimore News American*, March 26, 1984, p. 2.

[7] John J. Dziak, *The Soviet Approach to Special Operations*, May 1983.

[8] *Defense Intelligence Bulletin International* (Switzerland), Vol. I, No. 2, 1984.

[9] "Chemical War Games," *Newsweek*, May 12, 1975.

THE VULNERABILITY OF THE UNITED STATES ITSELF

This potential of sabotage and special operations applies not only to Europe, but to all elements of U.S. military power and its civilian support structure, including those in the United States proper. Soviet doctrine calls for all available means to prevent the enemy's effective shift to a wartime posture.[10]

While experts have long warned of the vulnerability of the United States to prewar and wartime sabotage, the magnitude of the problem has risen dramatically in the wake of developments during the past decade. In the short span of three years, from 1974 to 1976, virtually all the U.S. internal security capabilities were dismantled. The number of FBI cases of "subversives and extremists" under investigation fell from 55,000 cases in 1974, to 102 in 1977, to 14 in 1982—4 organizations and 10 individuals.[11]

This bleak picture on the protective front has to be contrasted with the number of terrorist organizations known to be operating within the United States (over 55) and with the tens of thousands of aliens entering the United States each year from the Soviet Union and Soviet-dominated countries alone. All this helps explain why Arnaud de Borchgrave testified before Congress in 1983 that the Soviet KGB and its subsidiary, the Cuban DGI, operate freely in the United States, and that "the DGI regards internal security in the U.S. as a joke." [12]

If a major attack were launched on the United States, the Soviets could be counted on to employ all possible means to disable U.S. military forces and their associated command and control structures. Soviet plans call for taking out important targets by several different means, the first among them sabotage.[13] Covert biological and chemical warfare would be ideally suited to this mission.

It needs to be noted that CBW capabilities have spread beyond the two superpowers to a rapidly growing number of other nations. The list in the Middle East includes Israel, Syria, Egypt, Iran, Iraq, Ethiopia and Libya. In the Far East, North Korea possesses a possibly significant chemical warfare arsenal. Closer to home, Cuba last year announced the establishment of an advanced chemical warfare training facility.

EMERGING TECHNOLOGIES

The traditional view of the chemical warfare threat has been dominated by the first-and second-generation agents—blood, blister and nerve agents. These remain important components of CBW arsenals, but priority attention now should shift to other, more modern varieties. For example, there is the category of highly lethal toxins. Fast-acting agents, both lethal and incapacitating, have been reported in Afghanistan. Consideration also needs to be given to the use of mixes of agents, which appears to have been prevalent in Southeast Asia, Afghanistan and in the Iran-Iraq conflict.

The list extends to biological agents, largely ignored in the United States since the signing of the Biological and Toxin Weapons Con-convention in 1972. Indeed, as will be discussed below, it is entirely inappropriate today to separate the dimensions of biological and chemical warfare. The Soviets have marshalled a major effort to develop agents with the capacity to penetrate gas masks. Even more ominous, however, is the entire new field of biochemical warfare. Apparent Soviet activity in this field [14] has prompted the U.S. Undersecretary of Defense for Policy, Dr. Fred Ikle, to testify that "microbiology" is one of the technologies that "pose the greatest risk to U.S. security." [15]

The new technologies embrace the chemistries of the immune system, neurotransmitters, biological cell membranes and protein sequencing, as well as the more publicized technology of genetic engineering. The scientific literature of the West is replete with accomplishments in these fields relative to the understanding and combatting of diseases. Yet, the same emerging technologies will make it possible to surpass nature's yield of pathogenic organisms and toxic substances in order to target selected vital human tissues and weaken the body's defenses against CBW assault. The possible applications for warfare are virtually limitless.

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[10] "Warsaw Pact Plans for Invasion of West Described," op. cit., and B. Byely et al., *Marxism-Leninism on War and Army* (Washington, DC: U.S. Government Printing Office, USAF Soviet Military Thought Series, No. 2, 1974.

[11] "How to Keep Soviet Moles Out of Government," *Human Events*, August 20, 1983, p. 9; and *The American Spectator*, February 1984, p. 49.

[12] J. Michael Wailer, "Author Details Cuban Intelligence Activity in U.S.," *Washington Times*, March 9, 1984.

[13] Interview with Jan Sejna, 1983.

[14] U.S. Congress, Subcommittee on Oversight of the Permanent Special Committee on Intelligence, *The Sverdlovsk Incident: Soviet Compliance with the Biological Weapons Convention?* (Washington, DC: U.S. Government Printing Office, 1980); and Jack Anderson, "Soviets' Biological Weapons," *Bangor Daily News*, February 17, 1984, p. 12.

[15] Cited in *Commercial Biotechnology: An International Analysis*, U.S. Congress, Office of Technology Assessment, OTA-BA-218, p. 458.

NEW LETHAL TOXINS

With respect to offensive applications, already toxins are available with a potency of over four orders of magnitude greater than that of nerve agents. Soviet interest and intent with respect to these agents are bared in the following passage on toxic materials in the recent edition of the Soviet *Military Encyclopedia:*

"Neurotropic toxins are toxic proteins which are primarily byproducts of the life cycle of microorganisms. . . . The neurotropic toxins are the most toxic chemical substances of all known toxic agents. Their harmful effect is based upon their capacity to inhibit the membrane receptors responsible for nerve impulse transmission. Under combat conditions, they can be used as an aerosol or in a solid or liquid state in mixed elements or ammunition; they can also be used for sabotage purposes." [16]

Toxicity is significantly relevant to sabotage operations because it greatly reduces both the problems of delivery and the likelihood of detection. For example, a dramatic increase in the toxicity and stability/survivability of agents could make the poisoning of water supplies a major problem for military installations and population centers, as well as greatly facilitating upwind, stand-off delivery of the agents by covertly operating forces, or overtly by ballistic missiles.

The above traces but the bare outline of accelerating developments. The various toxins—for example, cobra neurotoxin, in which the Soviets have exhibited uncommon interest—can be broken down, and the critical toxic peptides or amino acid sequences can be identified and manufactured. Potent toxic molecules can then be linked to antibodies directed against certain types of cells or cell structures. Ironically enough, the end result of this process has been described for years in the scientific community as "magic bullets" [17]—a term that aptly denotes the impossibility of drawing a line between the benevolent and warfare applications of ongoing research and development. Also, lethality can be extended by transferring a gene responsible for toxin production from a deadly species to a normally mild and prevalent species, as exemplified by the transference of the diphtheria tox gene into E. coli.[18] Moreover, most of the new agents can be prepared as small particulates for delivery by aerosol dispensers, and there are grounds for anticipating that they could be further engineered to pass through current U.S. and NATO gasmask filters, reportedly a major goal of Soviet military R&D.[19]

MORE DURABLE BIOCHEMICAL AGENTS

Higher survivability of agents represents another yield of the application of biotechnology to biochemical warfare. In the past, many biological agents bearing "desirable" characteristics were disdained because of inherently undesirable factors, prominently their inadequate survivability under conditions of heat, water or sunlight. Yet, it is now posible to "splice" the desirable toxic characteristics into other, more durable varieties. Organisms that sporulate are good candidates because of their ability to survive in extreme environments. As another example, bacteria have been isolated that live and reproduce in high-temperature pressurized boilers, and they might be used as survivable "vectors." Still other techniques, such as microencapsulation, can be used to render agents as survivable as desired—for example, to the point where they might be released via the jet exhausts of low-flying aircraft.

With respect to types of agents, through design or mixture almost any desired variety is within the grasp of a competent microbiologist or biochemist working in a well-equipped laboratory. The achievable range of lethal agents, both chemical and biological, includes highly virulent diseases that may or may not be contagious—and the boomerang effects of the contagious varieties could be minimized with secretly developed immunization sera. Yet, non-lethal agents, as exemplified by the "one-breath anesthesia" apparently used in Afghanistan, bode to be equally effective in warfare. Simple viruses that take effect in a matter of hours, but cause debilitations lasting for days, could be ideally suited to covert sabotage operations.

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[16] *Soviet Military Encyclopedia*, as translated in *Soviet Military Concepts*, Air Force Intelligence Service, No. 2-82 and No. 3-82, p. 530.

[17] Arthur L. Robinson, "The Magic in Magic Bullets," *Science*, October 21, 1983.

[18] Kaczorek et ai., "Nucleotide Sequence and Expression of the Diphtheria Tox 228 Gene in E. coli," *Science*, No. 221, 1983, pp. 855–858.

[19] *Continuing Developing of Chemical Weapons Capabilities of the USSR*, op. cit., p. 2, and *Soviet Military Power*, op cit., p. 70.

DEFENSIVE TECHNOLOGIES

While biotechnology offers new and ever more lethal means of warfare, it may also yield defensive measures against them. The key to such defenses is identification of the attacking agent or agents.

A promising development in that respect is that of biosensors able to detect, at low levels, a wide variety of biological and chemical agents. The advent of monoclonal antibodies, coupled with microelectronics, suggests the potential of a wide variety of small, ultrasensitive detectors that could be of immense value in fending against both sabotage and regular military operations. As has been reported in the *The Economist*, a new biosensor designed to detect nerve gas already is being marketed in Great Britain. Other nations with biotechnical capabilities, such as Japan, West Germany, Switzerland, Sweden, Israel and France, can be expected to pursue these and other avenues of defensive measures.

In the United States as well, some attention is being turned to the realm of defenses. The Department of Defense plans to provide $8 million over the next four years to support biosensing research.[20] While this initiative is commendable, the investment seems paltry in light of the magnitude of the problem and in comparison with the roughly one billion dollars per year that would make up the proposed total CW research, development and acquisition budget.

Also promising are improvements in the realm of protective measures: masks, clothing and medical treatment, including immunization. The U.S. Army has started a program to develop artificial receptors to which the nerve agent molecules may attach.[21] If successful, such substances could provide a measure of protection against a wide variety of nerve agents. The development of multipurpose immunogens by Paoletti and his coworkers, wherein vaccinia is used to carry protein antigen genes from a variety of disease agents, offers possible immunization against a multitude of diseases for which vaccines do not presently exist.[22]

An obvious word of caution applies to all of these development areas, whether they relate to offense or to defense. Some of the means and techniques sketched in the preceding pages have been accomplished and can be regarded as "on the shelf." Others are still in laboratory development or only in the conceptual stage. While they may be regarded as eminently practicable, nevertheless the road from laboratory to arsenal is not always short or smooth. Thus, obstacles have already arisen in the commercial arena of biotechnological applications: as one authoritative survey has warned, "the commercialization of biotechnology now may be more timeconsuming, more expensive, and less profitable than was initially hoped." [23] Similarly, the *Wall Street Journal* has reported that, while scientists remain very optimistic about monoclonal antibody technology, "people will have to realize it will take a long time to develop. It is not a trivial exercise." [24]

Additional problems of a technical nature confront the effective weaponization of many of the agents. Such problems relate totheir viability in storage and transport, their survivability under ambient environmental stresses, the ability to target them effectively, their potential boomerang effects, etc. Yet, such problems and obstacles have faced, in one measure or another, virtually all weapons systems that eventually made their devastating appearance on the battlefield.

SOVIET PROGRAMS AND DOCTRINE

The potential of biochemical warfare was cautiously adumbrated fifteen years ago by Nobel Laureate Joshua Lederberg. Addressing the Disarmament Conference in Geneva in 1970, he sounded the following warning:

"Molecular biology might be exploited for military purposes and result in a biological weapons race whose aim could well become the most efficient means for removing man from the planet. . . . My gravest concern is that similar breakthroughs (e.g., gene-splicing) of a rather predictable kind will be made and the military significance exploited, so as to result in a transformation of current doctrine about

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[20] *Commercial Biotechnology: An International Analysis*, op. cit., p. 254.

[21] Stephanie Yanchinski, "Gene-Cloners Chase Nerve-Gas Antidote," *New Scientist*, March 1, 1984, p. 5.

[22] *Science News*, No. 124, November 5, 1983, p. 302.

[23] *Commercial Biotechnology: An International Analysis*, op. cit., p. 95.

[24] Hal Lancaster, "Efforts to Develop Monoclonal Antibodies are Moving More Slowly than Expected," *Wall Street Journal*, May 1, 1984, p. 37.

"unreliable" biological weapons. . . . And, the potential undoubtedly exists for the design and development of infective agents against which no credible defense is possible, through the genetic and chemical manipulation of these agents." [25]

As far as Soviet activities are concerned, the fears expressed by Lederberg have dramatically risen over the past five years in the wake of four developments. First, we have the testimony of several Soviet emigres that, at least since the mid-1970s when the Biological and Toxin Weapons Convention went into effect, the Soviet Union has pressed a major military biotechnology research and development program.[26] The potential output of this development effort could well validate Lederberg's main concern that "a serious military investment in this area could be expected to outstrip this already breathtaking pace (recombinant DNA) of advance by many fold."

Second, the much publicized accident in Sverdlovsk in 1979, involving a local epidemic of anthrax disease that could only have been caused by the leakage of agents from a storage facility, offered strong evidence that the Soviets have not been complying with the 1972 Convention, and have been actively engaged in the manufacture and storage of biological weapons.

Third, there is the reported use by the Soviet Union and its surrogates in Southeast Asia and Afghanistan of a variety of both chemical and toxin agents. The precise nature of the agents used remains unknown; nevertheless, their reported effects of instant death or incapacitation should draw to them greater concern than to the microtoxins upon which most attention has heretofore been focused.

Fourth, the fact of a major biotechnology effort has been revealed in the Soviet scientific literature, which also suggests clearly that the Soviets have the capability to bring to fruition most of the concepts that have been discussed above—if, indeed, they have not already done so. The Soviet effort is marked by a close working relationship between the Soviet military and the Academy of Science, [27] with the military biotechnology R&D reportedly being directed by a Vice President of the Academy, Dr. Yuri A. Ovchinnikov.[28]

Soviet recognition of the military potential of biotechnology was clearly revealed in the passage in the *Military Encyclopedia* cited earlier. Even more portentous is the following paragraph on biological weapons in the same publication:

"The rapidly developing industry in microbiology can be switched over from its peacetime mission of producing antibiotics, vitamins, enzymes, proteins, amino acids and microbiological organisms for protecting plants to the production of pathogenic weapons. Achievements in biology and related sciences (biochemistry, biophysics, molecular biology, genetics, microbiology, and experimental aerobiology) have led to an increase in the effectiveness of biological agents as a means of conducting warfare . . . [and to] a qualitative reexamination of the very concept of "biological weapons." With the development of the aforementioned areas of science, the boundaries between biological and chemical weapons are erased, since all biological processes depend on chemical or physiochemical reactions. Bacterial toxins (botulin for example) produced by living organisms, but themselves not reproducing, and previously considered to be biological (bacteriological) weapons, are now classed as chemical means of destruction."

The lead sentence in the above passage underlines another important asset of biotechnology: ease and speed of manufacture. It is not necessary to produce agents and to weaponize them in advance. Rather, a variety of candidate substances or strains can be stored and, in a matter of several months before the planned attack, "brewed" for military use.[29] This approach has several advantages. The expense and risk of stockpiling weapons are avoided until absolutely necessary. Moreover, the decision of which agent to produce need not be made until the eleventh hour, thus allowing a maximization of the rapid advances of relevant sciences and technologies. In the process, security may be totally preserved because, inasmuch as the choice of attacking agent or agents is postponed until shortly before their use, the enemy is given little, if any, time to devise defenses or other responses to the attack.

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[25] Joshua Lederberg, "Engineering Viruses for Health or Warfare," *Washington Post*, August 16, 1970, p. B1; and "Biological Warfare: A Global Threat," *American Scientist*, March-April 1971.

[26] William Kucewicz, "Beyond 'Yellow Rain' " series of articles, *Wall Street Journal*, April 23, 25, 27, May 1, 3, 8, 10, 18, 1984.

[27] William F. Scott, *Soviet Declaratory Views on Chemical and Biological Warfare*, April 1984, citing the *Soviet Military Encyclopedia*.

[28] *The Sverdlovsk Incident: Soviet Compliance with the Biological Weapons Convention?*, op. cit.

[29] For an indication of the role of microbiology in speeding and facilitating the production, see also Roger Lewin, "The Birth of Recombinant RNA Technology," *Science*, December 23, 1983, p. 1313.

It is important to note that, consistent with the Soviet emphasis on surprise, this has been past Soviet doctrine in the biological arena. As is brought out in a German assessment of Soviet biological and chemical capabilities and intentions in World War II, preparations for biological warfare, where possible, were to be delayed until immediately prior to war:

"One month before the attack, about 5,000-6,000 "bacteriological commissars" must be trained in closed camps. Training aids (textbooks, manuals, notebooks, films, etc.) and the teaching staff must be prepared. At the completion of the training, commissars must be allotted to the entire country. Aircraft required for disseminating must be assembled and be equipped for their special tasks." [30]

The same intelligence report, one of the few to detail Soviet BW intentions, went on to describe Soviet objectives that, while they were cast in the context of World War II, undoubtedly carry continuing relevance today:

"The BW attack must be crash and concurrent with all other offensive actions. Oftentimes, it is only one single germ that may be used—depending on the circumstances and the mission. The main objective is to strike at the heart of the enemy country: at its centers of population, industries, and at the commerce, at its railway and waterway junctions. This will cause far-reaching disturbances in the adversary's plans; a concurrent rapid assault by our own troops may take us now far into desirable regions of enemy territories."

The latter reference to the element of rapid exploitation spotlights yet another characteristic of Soviet military doctrine that tends to be ignored in standard U.S. threat assessments. The emphasis on quick exploitation in Soviet doctrine reflects the sound appreciation of the effective use of artillery that permeates the Soviet military establishment. The concept extends not only to follow-up actions in the wake of nuclear attacks, but also to the exploitation of chemical strikes. For example, a chemical attack on a U.S. nuclear air base, or on a Pershing or Lance firing unit, would not be complete unless followed by an attack of assault forces with the objective of capturing or destroying the weapons. The importance of such exploitation is heightened by a Soviet doctrine that allows only two objectives with respect to enemy nuclear forces: their capture or destruction.

All of the foregoing, whether it relates to Soviet capabilities and wartime intentions or to the "peacetime" potential of terrorism or sabotage, traces a threat of ever burgeoning dimensions. Those dimensions become all the more sinister in the relative absence of any serious effort in the West to understand the full expanse of the threat, let alone to confront it. In the U.S. military, there is at least a base of doctrine and understanding upon which to build, potentially, a meaningful action program. In the civilian sector, however, a grasp of the threat is virtually nonexistent, with somber implications for even elementary means of preparing for and coping with the total problem.

ARMS CONTROL ASPECTS

In the spring of 1984, the United States proposed a total, worldwide ban on chemical weapons. The proposed treaty would prohibit the development, stockpiling, acquisition, retention or transfer of chemical weapons; other preparations for use of chemical weapons; the use of chemical weapons and their precursors. Yet, is another treaty the answer? Are there grounds for believing that a new treaty would succeed where the 1925 Geneva Protocol and the 1972 Biological and Toxin Weapons Convention have failed?

In December 1969 President Nixon renounced biological warfare and, two months later, toxins as well. The United States destroyed all of its stocks and ceased research and development. One of the main justifications invoked was the finding of a 1969 interagency study to the effect that biological and toxin weapons were not strategically significant. Subsequently, the 1925 Geneva Protocol and 1972 Biological and Toxins Weapons Convention, which outlawed all biological and toxin weapon activities, were ratified by the Congress.

As has already been noted, numerous Soviet violations have been reported since the signing of the treaty. They have included the manufacture, retention, use and transfer of toxins; the development, acquisition and maintenance of a stockpile of biological warfare agents; and the use of lethal chemical agents in war. In violation of the spirit of the treaties, moreover, the Soviets have staged an expansion of all activities related to chemical and biological warfare, as well as work on the application of biotechnology to biological and chemical warfare. And these efforts have been mounted at a time when the United States was unmistakably disarming in both the chemical and biological warfare areas.

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[30] Walter Hirsch, *Soviet BW and CW Preparations and Capabilities—1935-1945,* declassified June 6, 1974, by Foreign Science and Technology Center, p. 111.

In assessing the prospects for a new arms control "solution" to the problem, four conclusions stand out. First, the distinction can no longer be drawn between chemical and biological weapons. Toxins have long been considered more chemical than biological, and it is noteworthy that the Soviet *Military Encyclopedia* now classes all the prospects of genetic engineering and molecular biology as chemical means of destruction. Thus, any agreement or treaty would have to cover the full spectrum of biochemical weapons and account for all types of warfare, including so-called wars of national liberation, police actions, state-sponsored terrorism, assassinations, etc.

Second, the biochemical field almost certainly has assumed a truly strategic significance, and the definitions and provisions for verification and compliance must reflect this significance. Indeed, the biochemical field may be no less significant than the nuclear arena, particularly because the weapons *are* "usable." As Joshua Lederberg discerned fifteen years ago, they "could well become the most efficient means for removing man from the planet."

Third, while not belittling the importance of a potential treaty's coverage and the elements of equitability and verification, the main problem is that of compliance. The treaties currently in effect are not at fault: the problem is that they have been breached. The claim that a "better" treaty is needed distracts attention from the central issue of enforcement.

Fourth, verification is, indeed, immeasurably difficult, as was recognized by the U.S. Administration in proposing the new treaty. The dearth of detailed knowledge of Soviet offensive capabilities is emphasized by the fact that official reports by the U.S. Defense Department (e.g., *Continuing Development of Chemical Weapons Capabilities in the USSR* and *Soviet Military Power*), contain no mention of the size of the Soviet stockpile, nor data on chemical agents or offensive use doctrine that have not been in the open literature for twenty years or more.

In the realm of monitoring, the problems multiply into staggering proportions. Does the study of cobra neurotoxin serve medical or military objectives? Can "magic bullets" for medicine be distinguished from those for weapons? Does the insertion of tox genes into E. coli relate to medicine or weaponry? What conclusions can be drawn from the observed use of ricin or the mass manufacture of viroids? The answer in all cases is that there is no definitive answer.[31] The problem is compounded by the fact that their greatly increased effectiveness gives military significance even to small quantities of agents. Thus, both the past record of compliance and current development trends stress the inherent limitations of the arms control approach.

A ROAD TOWARD ACTION

In addressing the immense problem of biochemical warfare, the U.S. Administration finds itself in a difficult position. On one hand, the seriousness of the problem may be recognized at least in some high levels of the Government. At the same time, a multitude of institutional and bureaucratic factors obstruct a meaningful response.

Thus, the military services do not want to divert scarce resources from their favorite conventional hardware programs to the area of biochemical warfare, especially since the dimensions of this problem extend well beyond the familiar domains of military facilities and regular military forces and operations. Even the binary modernization program is not really being pushed, as is evidenced by the low profile given this program in an election year.

Neither the U.S. Arms Control Agency nor the State Department seems willing to countenance increased attention to the biochemical weapons area, lest it compromises the chances of arms control in biological and chemical weaponry and raises additional and highly controversial problems of technology transfer. For their part, the members of the intelligence community tend to shy away from the problem because it spotlights the strong limitations on their capability to collect data from within the borders of the Soviet Union, and because a strong Soviet biochemical threat is not within the bounds of their institutional positions on the threat. Finally, influential segments of the scientific community will tend to reject assessments of the application by the Soviets of genetic engineering to biological and chemical warfare. Their motivation is clear: they do not want to see the insidious stigma of biological and chemical warfare attached to their own efforts in this field.[32]

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[31] See Professor E. R. Blout, Letter to the Editor, *Wall Street Journal*, May 3, 1984.

Yet, we cannot permit these institutional obstacles to blind us to the dimensions of the problem and its dire dangers. Perhaps what is called for is the dramatic initiative of a high-level investigative body similar to the so-called Scowcroft Commission that probed the requirements of the strategic nuclear arena and the proposals of which generated at least the outlines of a U.S. consensus on these requirements. Armed with a charter to examine all the evidence, and to project the all-important future dimensions, such a body should be able to present an objective and informed view of the problem and recommend a course of action. Whatever road is taken, chemical and biological warfare, and beyond, have ascended on the agenda of urgent national priorities.

Chairman GOLDWATER. Thank you very much.

Senator Glenn?

Senator GLENN. Thank you very much, Mr. Chairman.

I know our time is getting very precious here this morning with the number of people we have yet to appear so I will try to be very, very brief.

Chairman GOLDWATER. You have been the tail end Charlie before.

Senator GLENN. That is true.

I would like to congratulate all of you for the work your panel did. I have read your whole report. I think it is excellent. It has laid out very well the exact situation in which we find ourselves.

Chemical and biological war is repugnant to anybody who is civilized in this world, but war is repugnant to anybody civilized in this world also. We hope we don't have to go to war again.

I was particularly aware of this chemical issue about a year and a half ago when I was in the Presidential race. If I ever saw an issue that was demagoged, this is it. People would say, "I am against nerve gas and he is for poison nerve gas." I heard that so many times it was ad nauseam, and it had its effect.

BINARY CHEMICALS

What I have tried to do here on the binary chemical modernization was two things. Prevent us from unilaterally disarming as those old stocks become dangerous, and they are being taken out shell by shell as they become dangerous. I was trying to prevent that.

And No. 2, trying to make safer stocks for our own people, the point you made a moment ago, that we should be trying to make sure that our own troops are safe.

If these things are broken in transport and going through cities, we are in deep trouble, or if one leaks in a bunker someplace and someone walks in, they are in deep trouble. That is all we were trying to do. I just want to mention that if I ever saw one thing that was demagog, that was it.

The retaliatory response as a deterrent has a good track record. The Germans in World War I had it, we didn't; they used it. The French and the British had supplies and they used them on a limited basis. It was never again used by either side during that war.

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[32] See, for example, Michael Heylin, "The Weapons Connection: Role of New Biology Uncertain," *Chemical and Engineering News,* August 13, 1984, and Douglas McCormick, "Open Questions in Military Biotech," *Biotechnology,* August 1984.

World War II was a standoff. They had it, we had it; nobody used it. In Korea we had it, they had it, it wasn't used. Vietnam is still up for analysis as to what happened, but in areas where they knew we did not have it, they may have made use of it.

In Afghanistan the Afghans don't have it; the Soviets have been using it. The record there is very, very clear. I don't look at this as unlikely as some people do and maybe, as you indicated, as a sort of weapon of last resort.

I think if a determined adversary has a weapon that we have no defense for and no counterdeterrent like it, that is an invitation to disaster, that is an invitation to use it. I don't have the least doubt that they would.

I would like to ask only one question. You have already touched on this a little bit in your response to some questions before.

OPTIONS AGAINST CHEMICAL WARFARE

If we have chemical warfare used against us on any front and it is having its effect, what option do we have?

General **Kroesen**. Sir, the options that are available are quite limited, either you survive the chemical attack and continue to fight with your conventional weapons or if you are subjected to such a major success on the other side, you consider the employment of nuclear weapons.

Senator **Glenn**. That is your option?

I think it raises the nuclear threshold where that would be the choice. A determined chemical attack to me would mean with our lack of defensive capability and lack of deterrence to toss back on them, we would either probably surrender or go nuke.

General **Kroesen**. Yes, sir.

Senator **Glenn**. I don't see that there is much option.

General **Kroesen**: That is why I referred to the NATO nuclear policy as one that I think must be treated with great respect by an enemy who determines he will make the attack in the first place. If he does decide that the reasons justify the offensive operation, those same reasons probably justify support with chemical weapons.

Senator **Glenn**. Thank you, Mr. Chairman.

Chairman **Goldwater**. Thank you, Senator.

Senator Wilson?

Senator **Wilson**. Thank you, Mr. Chairman.

DANGER OF LOWERING NUCLEAR THRESHOLD

Mr. Chairman, I am struck by the report and the comments that our colleague, Senator Glenn, made. It seems to me inescapably one of the great dangers in this disparity is the lowering of the nuclear threshold.

Let me then turn to another area, and I don't know that the study was asked to deal with this, but perhaps you can comment. That is the area of arms control.

In what context are we currently pursuing with the Soviets on a bilateral basis any kind of arms control agreement with respect to chemical weapons?

I am well aware of the initiative proposed by the Vice President in the spring of last year. To the best of my knowledge, there was deafening silence, but I am really not current.

Can you give us an update of the status of the negotiations?

General Kroesen. No, sir, we cannot, but I believe there will be later witnesses who will discuss arms control.

Senator Wilson. I will hold that question for the next panel.

With our current inventory, what capability do we have to respond in an offensive way?

You have been quite clear most recently, General Dixon, that a defensive deterrent, in your view, is not much of a deterrent, that these cumbersome suits and masks simply serve to put our own troops at a great disadvantage.

Isn't it true that we have almost no capability?

General Kroesen. Sir, our report refers to our ability to retaliate as token only. Without trying to discuss quantities or what we are capable of doing, one of the great arguments that the Army folks had on this study was whether to employ what we did have available in a consistent two rounds at a time to try to keep them buttoned up, to try to assure that they were put in their chemical gear, or whether to employ it in a more militarily significant manner in a local area where we would have demonstrated a capability to employ chemical weapons.

I am not sure we ever came to a resolution of that argument in the study group. It was an academic kind of discussion. By the time the three days of war had been described we still had not received authority to release our chemical weapons from their depots to the commanders who would have been making those plans.

Senator Wilson. Mr. Chairman, I think the rest of my questions have been asked. In the interest of time, I will ask nothing further and hope we can get to the next panel.

Chairman Goldwater. Admiral Denton—Senator Denton?

Senator Denton. Thank you, general [laughter].

Mr. Chairman, in view of the shortage of time and the personalities and potential of these gentlemen as witnesses, I feel it necessary in spite of the unusualness of it to mention this to you, Mr. Chairman, and to you, Senator Thurmond, something about these gentlemen. I don't know General Kroesen, though that well, I know of his tremendous reputation in the Army, but I have worked very closely over a long period of time with Admiral Kidd and General Dixon and they have many characteristics in common with the two of you.

They are extremely candid, even when they had their jobs, which is remarkable. When we have Chiefs of Staff of the services on duty, you are aware they must present a duality of impression, one, we are in trouble, two, that we are a lot better off than when they took over.

Somewhere in that balance there is miscommunication. I was in the Navy for 34 years and I know that to be true. These two gentlemen on the end here would never do that, even when they had their commands. They would always tell it like it was. They would call a spade a spade.

In view of the remarkable value that their expertise represents to this committee, rather than delve into the report, which I understand and agree with, I would like to ask them if they would comment on a question I am going to ask them which deals with prolog here:

> We are unaware of the enormity of our problem. of the vulnerability of our forces to an attack, and of the high risk of defeat if they are not provided with ability to fight back, to retaliate with stones of equal weight from catapults of comparable power.

That statement was made here as a prolog to a treatise on chemical weapons, but could have been the treatise for a thesis on arms control, on the 3-to-1 advantage in land-based strategic missiles which the Soviets have on us, on the fact that four more modern land-based ICBM systems have been developed by the Soviet Union since the SALT Treaty.

We are having difficulty predicting that even Republicans will vote to fund the MX, and we have the conventional imbalance that exists between the two, and no move to correct that in any serious way.

Then there is something I hope we go into when Senator Thurmond brings into being the joint hearings between the Foreign Relations Committee and Judiciary Committee in which we will address terrorism, because the ongoing war right now, the hostility that is hurting the interest of the United States, not only in security terms, but in economic terms and other terms is going on now in places like Central America, various places in the Pacific, Angola.

Then there is conventional warfare going on in Afghanistan and Southeast Asia which is hurting us.

I just wonder if these gentlemen would comment on the fact that, within Republican ranks, we are considering a budget authority freeze for next year, including defense, and while Admiral Kidd commended the President's program, that would kill the President's program.

Instead of addressing the fact that we have reversed the ratio of social spending from half as much as defense in 1962, when we had many fewer threats to our security than we do now, and a lesser degree of threat, we now have a situation with spending on social programs being twice the spending on defense.

Instead of addressing it that way, we are trying to balance the budget in 1 year and we are thinking of balancing it on the back of defense.

Now, I think it is likely that we are not going to be anywhere near the administration's already severely cut recommendations. We are going to be below President Carter's projections, it appears, for this year.

Without further ado, I would appreciate any comment that might pop into your heads.

What does that portend for the United States?

I will never forget General Dixon's slide. I used to say, and this is right in Chairman Goldwater's heart, how can the Soviet Union continue to build this margin of military might over that of the United States in spite of the ability of the United States to industrialize and having a better system economically, and so on?

He would say, "Wham, here is how."

You would look on the screen and you would see a midsized Russian city with mud streets, no automobiles, but with television antennas because they have to hear from Big Brother every day and every night. They are forced to make the sacrifice.

The question in Chairman Goldwater's heart is: Are we?

Is that or is that not the question and are we getting to the point where the decision is becoming adverse or tending to become so?

Survival is being sacrificed for political considerations day by day as we deal with this budget, and we are giving in to the fact that we are going to become more and more a welfare society and our margin of security is going to reduce until we don't have it.

General KROESEN. Admiral Kidd? [Laughter.]

Admiral KIDD. In the specifics of chemicals, they are comparatively easy to make. They are comparatively inexpensive to make, they are easy, therefore, to come by from ingredients purchasable at a druggist or hardware store.

You know, maybe the EPA is doing us an unintended service. I picked up just as I walked up this morning the front page of the National Geographic. On there is a fellow in a suit not dissimilar to what we are talking about. I picked up from an inner page the Washington Post, a similar picture of firemen.

Now, if maybe we could get the public, Senator Denton, to go down to the local fire department, maybe they could get the message from somebody that they know by first name and trust. What is the first thing those firemen will tell you?

The degree of impairment that they are discovering they operate under now when they are obliged to go and put out a chemical fire in a plant, in a paint storehouse, or what have you. It is complicating the firefighters' protection monstrously, and we are professionals in a slightly different branch of the trade, fighters, but where the potential damage is a bit more serious for both sides.

A woman goes shopping. What is the first thing she does when she gets home? She takes off her shoes, her feet hurt. These firemen, and anybody else who is uncomfortable, you get home or get in the car, you loosen your collar.

If we get into a chemical engagement and/or environment, these things will not be possible. You will stay encumbered. Now, that word does not describe in any way, shape, or form what we are talking about.

Can you imagine after the fourth or fifth day in that outfit, you haven't been to the head, you haven't had anything to eat because the food will be contaminated, you are hungry, miserable, hot. Think about that.

Heaven help you if you have been wounded because medically how do we get at fixing the hole in you and putting a vulcanized patch on it? The medical profession doesn't know how to operate safely on contaminated wounded.

We have just seen the tragedy of that little boy, not very old, maybe 10 or 12 years old, who lived in a bubble all his life. We are just scratching the surface here.

Now, if any enemy with that capability in his hand, as my colleagues have indicated, can drive us into that bubble, figuratively, or into wearing this kind of kit 24 hours a day, because we can neither smell it, taste it, or feel it, he has a tremendous advantage.

The only recourse is to live in this kind of cocoon where we have impairment to our efficiency. You know, we like to breathe. It is a sort of natural thing and when it stops, it gets our attention. This is what we are talking about.

The same way with food. Now, are we going to put an engraved invitation on a silver platter in front of any bully, today the Soviet Union, say go ahead and make a few of these things and we will get dressed up and undertake to fight and blunt your aggression when and if it comes and that will be all right?

No way. The elastic coefficient of the man in uniform, be he soldier, sailor, or airman, is indeed a remarkable thing, but in this field now we have stretched well beyond the elastic limit of reasonableness. It is time now to acquire a comparable capability to put requisite balance on this scale, Senator.

Thank you, sir.

Chairman GOLDWATER. Does that do it? [Laughter.]

Senator DENTON. General Dixon had a remark.

General DIXON. Only because when the Senator asks me, I expect I had better respond.

You know you and I discussed the fact that probably the priority of social service that has to be taken care of in this country is to keep Americans alive and free, a function to which the Defense Department contributes a substantial amount.

I don't know exactly what is required to give us an adequate defense. I am not in charge of that. I have some input to it as a citizen and a taxpayer. I hope that we have made it clear to you that we come here with no ax to grind other than the task we were told to do and it leaves us with a sensation that we had better take care of the chemical problem.

The alternative is unacceptable to us, to all of us.

Chairman GOLDWATER. Senator Warner?

Senator WARNER. Thank you, Mr. Chairman.

First we ought to take note our colleague, Senator Glenn, when that firing was directed at him, he never changed his position.

Senator GLENN. I am back here, too, John. [Laughter.]

Senator WARNER. I think that was destined anyway. [Laughter.]

It is not who won or lost, but how you play the game.

A general question to you, General Kroesen.

Is it fair to the young men and women who have volunteered to serve on the front lines of the world in preservation of peace not to have them properly defended with this type of weapon? Is it fair?

General KROESEN. Sir, I would answer that by saying it is not fair to our forces if we don't equip them with the latest kind of weapons, the latest kind of protection, the latest in chances for survival that we can provide for them.

It matters not whether we talk about an M-1 tank or a chemical offensive capability. We should give them the greatest capability we can to accomplish their mission in combat.

Senator WARNER. Many of us have been working for years to have the hearing that we are holding today such that we can fully inform the American public about the unfairness to our volunteers who serve in these outposts throughout the world.

NUCLEAR THRESHOLD

Turning now to the question of the nuclear threshold, in a battlefield situation the tactical nukes are likely to be denigrated along with the conventional armament. That means those making the decision will be forced to go up to theater nukes and you are pressing right against the exchange of ballistic weapons.

Would that be correct?

General **Kroesen**. I think that is a good summary, sir, of our position.

Senator **Warner**. Admiral Kidd, having been on the receiving end of your candor for many years, let us turn to the question of shipbuilding among your many distinguished accomplishments in the U.S. Navy.

You were chief of shipbuilding for many years. My recollection is that we decided not to try to equip our ships, it would be too costly, it would denigrate other weapon systems through compromise of space to put in the necessary equipment, but what can you share with us today with unclassified information about how the Soviets have gone ahead in the design of their ships and is there not a disparity between the American warship and the Soviet ship in terms of this type of capability of chemical weapons?

Admiral **Kidd**. The short answer is "Yes, sir." Information available is that they, the Soviets, are finding it convenient and necessary to invest in so equipping their men of war, not just men of war but "citadelization" is the word, a contained citadel in the ship, air volume put on positive pressure to keep the gas or chemicals out in some of their merchantmen that would have a naval role, support role.

Now, that is big money, sir. When I was privileged to work for you, that was very big money. The decision was made, and I think properly so, there were other things we needed more and badly first early on. So, we bought them.

MODERN CHEMICAL RETALIATORY DETERRENT

Senator **Warner**. It was our hope someday we would face up to the problem and have the modern chemical retaliatory deterrent in the hopes that it would never be used in a naval situation.

Admiral **Kidd**. Unfortunately, 10 years ago the indicators from the other side were not as sobering as they are now, that they are putting their money where their mouth is and in abundance and they are practicing with it, naval infantry coming ashore on beaches all suited up in chemical clothing. This is getting the attention of the uniform side.

Senator **Warner**. In simple terms if we were in a confrontation with the Soviet Navy today and they initiated the use of chemical weaponry in a naval engagement, we have the option of either cutting and running or just being at a severe disadvantage; is that not correct?

Admiral **Kidd**. Absolutely, sir.

Senator **Warner**. Thank you.

Chairman **Goldwater**. Thank you very much.

Gentlemen, that ends this panel. I want to thank you not just for myself, but for the entire committee and I am sure for the Senate and I think when the public begins to be aware of this, they will be thanking you also.

I wish every American could see the demonstration that Admiral Kidd put on with the cover of the National Geographic. I think it runs down about every other television ad you could look at all day long and you would have to wear the same kind of equipment first if you want to enjoy the program and, second, if you want to live.

So, I thank all of you. You have done a very, very fine job. This is a subject, as I mentioned at the outset, that is politically tough, but it is going to be a part of our authorization and I hope and pray that it will pass the Senate and I hope the House will take it.

Thank you, gentlemen.

[Questions for the record follow:]

QUESTIONS SUBMITTED BY SENATOR BARRY GOLDWATER

IMBALANCE IN UNITED STATES/SOVIET CHEMICAL CAPABILITIES

Senator **GOLDWATER**. If permitted to continue, will the imbalance in U.S./Soviet Chemical capabilities effectively undermine the modernization of our conventional capabilities associated with "emerging technologies"?

Army

General **KROESEN**. I don't think I would use the word undermine, Senator, but our panel did conclude that we will not reap full benefit from our conventional modernization if it is not accompanied by a chemical modernization program. We believe that our improved capabilities can be largely negated by a chemical attack which increases the enemy's pace of operations and promotes early success.

Air Force

General **DIXON**. It has now. I judge it will do so in the future—we think it will have up to 1990—there is no reason to be optimistic thereafter.

Navy

Admiral **KIDD**. Yes sir. In my view, the undermining has been underway for some time now—beginning years ago when we first began to see evidence of Soviet serious and sobering effort to ready themselves to wage war in a chemical environment.

Senator **GOLDWATER**. General Dixon and Admiral Kidd, with all of the collective military experience on your panel, can you conceive of the Soviets not exploiting the enormous military advantages to be gained from initiating chemical attacks?

Senator **GOLDWATER**. With all of the collective military experience on your panel, can you conceive of the Soviets not exploiting the enormous military advantages to be gained from initiating chemical attacks?

Army

General **KROESEN**. Without trying to divine enemy intentions, I can still say that our panel believed that they would be militarily foolish not to employ them. That does not mean that political and humanitarian factors would not militate against such use, but the military advantages must carry significant weight in any debate over chemical employment.

Air Force

General **DIXON**. We cannot. Given the awesome risk in starting the attack, there is zero doubt that every Soviet advantage will be used. We have made this a cheap, simple, effective way to attack NATO and "win" the "conventional" battle.

Navy

Admiral **KIDD**. No sir, I cannot. The reinforcing results available from selective employment of chemicals, together with conventional weapons, could, in time, become too attractive an option to resist. Deterrence generated by a credible deterrent capability to retaliate promptly in kind has worked thus far since World War I. We cannot afford to deny ourselves this option in the face of Soviet behavior since 1945.

QUESTIONS SUBMITTED BY SENATOR SAM NUNN

UNITED STATES/ALLIED MUNITION IMBALANCE

Senator NUNN. As you know, I have been very concerned about the significant imbalance in U.S. and Allied munitions capabilities. On more than one occasion, I have pointed out that it makes little sense for U.S. forces to be able to fight for 30, 60, or 90 days if the allies on their right and left flanks run out of ammunition in less than a week.

a. How would you assess our allies' capabilities in terms of protective equipment against chemical weapons attack?

b. Assuming we continue to make progress in meeting U.S. protective equipment requirements, what would be the consequences on the battlefield if our vulnerable Allies were largely incapacitated by widespread Soviet chemical weapons attacks?

c. What can the United States do to encourage the Allies to give protective measures higher funding priority?

General KROESEN. a. All of the NATO allies have protective equipment for their soldiers. In general, they are as well prepared for a chemical attack as we are, although there is disparity in the quality of masks, suits, gloves, etc. I believe most of the armies believe as I do; that is, that their combat forces can survive initially but cannot sustain their combat effectiveness.

b. If we presume such a disparity in survivability, we would, of course, have an American army fighting in an island of combat, one that I believe they could defend, probably withdrawing west of the Rhine where they could be sustained by airlift into our Rhineland air bases. I do not accept, however, that the disparity of survival capability will ever be that great.

c. I believe our Allies have suffered the same myopia regarding the chemical threat that we have in the past 15 years. My only answer, therefore, is that we have to assure that they are aware of the current dangers, then expect them to react much as we have done in the past year.

Senator NUNN. On page 281 of the Secretary of Defense's 1986 posture report, Secretary Weinberger says, "Although we no longer believe the Soviets intend to use chemical weapons on a massive scale, the selective use against special targets cannot be ruled out." In your IDA report, you seem to take a much darker view. On page 3, you state that the potential for Soviet first-use is "likely," and not just something that cannot be "ruled out." You also suggest that the Soviets would target air bases, seaports, population centers, frontline troops, and ships and convoys at sea, even in the expanses of the Atlantic Ocean. This sounds like something approaching a "massive scale" to me. Would you comment?

General KROESEN. The quotation you cited refers to Soviet intent, and I have no wish to take issue with Secretary Weinberger's understanding of that intent. On the other hand, our report deals with capabilities and the military significance of a postulated employment of those capabilities. I agree that a full exploitation of such capabilities more than approaches "massive scale," and that as military commanders we would not have "ruled out" such employment.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

DEFENDING AGAINST SOVIET ATTACK

Senator LEVIN. General Kroesen, when you commanded US troops in Central Europe, along with some allied troops in the Central region, you were quite positive about the abilities of your forces to successfully defend against a Soviet attack. Specifically, you stated: "It disappoints me to hear people talk about the overwhelming Soviet conventional military strength.

"We can defend the borders of Western Europe with what we have. I've never asked for a larger force. I do not think that conventional (non-nuclear) defense is anywhere near hopeless.". . .

"Given good generals, we are not outnumbered too much to win." he says. There are natural advantages that can be exploited in defending Central Europe. He estimates that the Russians and their allies could muster three divisions to his one. He does not see that as an awesome advantage, given the powerful new weapons, trained personnel and fast reaction times of his forces.

"At 3-to-1," the general says, "we ought to be able to keep from losing."

You made these statements in 1983 or late 1982.

Today, you come before our committee quite pessimistic about NATO's chances to defend Central Europe, primarily due to what you consider to be US deficiencies in both offensive and defensive chemical weapons.

Why has your position changed so drastically in such a short time, especially since when you made the optimistic statements, the Soviet chemical warfare threat was well documented and it was long after DoD and the Army began their efforts to obtain Congressional approval for binary munitions?

General KROESEN. The only change in my position is one brought about by a late education regarding the chemical threat we face. In my six years of command in Europe, I was never fully informed about that threat, and I was never smart enough to demand that I be informed. Now, the statements I am alleged to have made all refer to conventional capabilities, conventional war. Many of the sentences being quoted are out of context, strung together as though they were related when they were not. I do believe our conventional strength in Europe is sufficient to initiate the defense of Western Europe (not defend Western Europe as I was quoted.). We cannot sustain such a defense without immediate, powerful reinforcement by men (forces), material, and supplies. "Given good generals . . ." is a quote taken from a discussion on the importance of leadership. "At 3-to-1 . . ." is from my observations about military history, tactics, and the force ratios associated with offensive and defensive successes. I subscribe to them still, but I object to their collective presentation.

I remain sincerely optimistic about the capabilities of our forces to fight successfully in the initial stages of a conventional war. But I am just as sincerley pessimistic about their chances if they find themselves in the kind of chemical environment which I believe the Warsaw Pact forces can create.

CHEMICAL RETALIATION

Senator LEVIN. On Page 2 of your statement, you say your study group concluded that NATO policy "acknowledges a requirement for chemical retaliation . . . for which NATO has issued no guidance."

Are you saying that the Alliance has no agreed upon strategy for how to respond to chemical attacks, whether with conventional weapons, chemical weapons or nuclear weapons?

Are you saying that the political representatives of NATO members, meeting in joint NATO councils, have not yet discussed the best way for the Alliance to meet the Soviet/Warsaw Pact chemical threat and thus have not yet agreed on an overall alliance strategy to do so? The military representatives of NATO members?

Are you saying that there is no agreed upon set of tactics for how to fight a chemical war, as well as no agreed upon set of offensive or defensive chemical stockpile requirements?

General KROESEN. Yes, I believe we were saying all of those things; however, we were reflecting upon conditions at the high levels of the NATO structure; i.e., the NATO Council and the Military Committee. At lower levels, military commanders discuss tactics, prepare contingency plans, and consider how to fight war in the absence of guidance and direction.

CONGRESS SUPPORTS CHEMICAL FUNDING

Senator LEVIN. Your special study group concluded that, despite Congress's strong support for funding defensive chemical warfare capabilities in the past, that our defenses in this area remain inadequate. Other than a need for increased R&D to develop improved defensive capabilities, what specific inadequacies do we have that must be addressed?

General KROESEN. Our defensive inadequacies include first, a requirement for earlier, more reliable and more comprehensive warning. Our alarms do not detect all known chemical agents, they do not disseminate their warning reliably. We need survival equipment for soldiers which is more protective, longer-lasting and less debilitating than today's equipment. We need collective protection devices which assure continuity of operations—tank maintenance, intelligence fusion, aircraft rearming and re-fueling, medical treatment. We need better decontamination means. However, the greatest need is a capability to retailiate, and defensive improvements are not substitute for the binary round and the Bigeye bomb.

Senator LEVIN. Is it your impression that the defensive capabilities of our National Guard and Reserve forces are significantly less than the defensive chemical capabilities of their active forces counterparts?

General KROESEN. No sir, I believe the Guard and Reserve capabilities are equal to those of the active forces.

Senator LEVIN. What funding initiatives would you suggest in FY 86 to begin redressing the overall defensive shortfalls as well as those of the Guard and Reserves?

General KROESEN. I believe we need an increased challenge to our research and development community and to American industry to find better means to survive and operate in a chemical environment. I don't know of any improved means I would advocate for procurement, but I do know of some things which I think deserve exploitive investigation.

STORING BINARY MUNITIONS

Senator LEVIN. General Kroesen, would new binary munitions stored in the United States have as much deterrent or war-fighting value in the defense of western Europe as would such munitions stored in Europe?

General KROESEN. Obviously, as a field commander, I would advocate deployment of such munitions to any theater in which I had deployed troops. Their immediate availability would be important to me. But I would rather have them available aboard ship or on airfields ready for shipment form the U.S. than not have them at all. As a corollary, I would rather have enhanced radiation warheads in Europe, but I would never given them up just because a political decision keeps them stored in the U.S.

Senator LEVIN. If not, why should we build such munitions before our allies agree to forward deploy them?

General KROESEN. I believe that the first, most pressing requirement is to build the weapons and have them available for U.S. forces to use—not just in Europe, but anywhere they might be committed. The Middle East is almost as dangerous, chemically, as Europe. Once we have them, I believe the logic associated with replacing our unitary systems with binary; i.e., safety, the elimination of nerve gas stocks, will result in European acceptance of their deployment.

Chairman GOLDWATER. I will call the next panel. The next panel consists of people from the front line. We have Gen. Glenn Otis, Commander in Chief of the U.S. Army, Europe, and Gen. Charles L. Donnelly, Jr., U.S. Air Force, Commander in Chief of the U.S. Air Forces, Europe.

They will address the situation they face today in NATO and detail their views on the requirement of the binary chemical modernization program.

In case you have seen these GI's standing around, they have brought along several GI's who will be dressed in chemical protective gear and who will be prepared to discuss its implication on the battlefield.

Gentlemen, if you have opening statements, you may put them in the record or you may read them. We will enjoy hearing from you very much.

Welcome back home.

STATEMENT OF GEN. GLENN K. OTIS, U.S. ARMY, COMMANDER IN CHIEF, U.S. ARMY, EUROPE

General OTIS. Thank you very much, Mr. Chairman, distinguished Senators.

We indeed have a joint statement by General Donnelly and I that we would like this committee to accept for the record. We will summarize in just a few minutes so that we can get to the more important business, with your permission, sir.

Chairman GOLDWATER. Thank you.

General Otis. It has been rightly stated that the battlefield needs for the operations ought to dictate the requirement and not the other way around.

The way our battle plans are now in the event that we are attacked in NATO, our battle plans envision that we will meet the enemy at the front, we will attack him in the depths of his formations, as well as fight the enemy that is in our rear.

We will do so in a combat plan simultaneously. Today if the enemy resorts to the chemical weapons capability that he has and we do not, then we will find that our forces are totally at risk with little opportunity to put him in the same condition.

I thank you for the evidences of support here now for those soldiers.

Let me conclude these short remarks, Mr. Chairman, and Senators, by saying as you did, Mr. Chairman, in your remarks, that indeed this is an emotional issue with the American people and I am sure it should be, but it is equally an emotional issue with me and 230,000 of those American soldiers whose parents have allocated them today in Europe to be at the front lines of the defenders because those 230,000 soldiers are at risk, as you will see by some of our troopers here who represent them.

They are at risk unless we indeed have a credible retaliatory capability.

Now I would like, with your permission, to turn the floor over to my colleague, General Donnelly.

STATEMENT OF GEN. CHARLES L. DONNELLY, JR., U.S. AIR FORCE, COMMANDER IN CHIEF, U.S. AIR FORCES, EUROPE

General Donnelly. Mr. Chairman, again I would like to be short because, like General Otis, I have some 93,000 young Americans who will be affected today before reinforcement by any chemical attack. I think you will see how a $1 million pilot, if you will, who has to fly in a chemical environment gets in his aircraft and we would like to demonstrate that as well.

I think it is important to note that when you reduce our capability by 50 percent, then we are at great risk of dying earlier than we would normally die in war. Anytime that a chemical environment exists, we lose 50 percent of our sorties, we lose 50 percent of our effectiveness. That is an approximation, but it basically will be that, which means even though we have a 100-percent conventional deterrent today, on the first day of chemical warfare we now have a 50 percent deterrent.

Thank you, sir, for the ability to summarize.

With your permission, we would like to bring in our soldiers and our airmen and permit the committee to watch them dress and also ask them questions, as you suggested.

Thank you, sir.

[The joint statement of General Otis and General Donnelly follows:]

Prepared Joint Statement by Gen. Glenn K. Otis, Commander in Chief, U.S. Army, Europe, and Gen. Charles L. Donnelly, Jr., Commander in Chief, U.S. Air Forces in Europe

General Otis. Mr. Chairman, Members of the committee, General Donnelly and I appreciate this opportunity to appear before you today to express the European Field Commanders' view on chemical warfare. Our mission in Europe is to deter aggression and to prepare for the combat operations required for the defense of NATO, should deterrence fail. In addition to conventional warfare, this further includes all aspects of chemical and nuclear warfare as stipulated in United States national policy.

The Armed Forces of the Soviet Union and its Warsaw Pact allies are better equipped, structured, manned, and trained than any other military force in the world to conduct offensive and defensive operations in a chemical environment. They have a variety of chemical agents; they have deployed artillery, rocket, missile, and aircraft delivery systems; and they have the tactical doctrine for employment of chemical agents on the battlefield.

To augment their capacity for fast, highly mobile warfare, and to protect themselves from chemical warfare agents (both their own and their adversary's), the Warsaw Pact countries have fielded a full range of the world's largest and most complete inventory—covering all areas of nuclear, biological and chemical (NBC) protection, identification, detection, and decontamination. Collective protection systems are being provided in shelters and in many combat vehicles. Some systems have chemical-agent filters coupled with an overpressure capability.

For example, the Soviet BMP armored vehicle is equipped with such a complete system. The newest Soviet tank is thought to have a system which automatically closes unprotected apertures when radiation or nuclear shock waves are encountered, as well as collective NBC protection. The BRDM-2, a Soviet NBC reconnaissance vehicle, is equipped with a collective protection system and with automatic contamination-flag implacers, thus allowing a contaminated area to be marked without having crew members dismount from the vehicles.

The Soviet chemical stockpile is an operational arsenal, while very little of ours is even effective, much less useful. Most Soviet weapon systems have a chemical capability. Since chemical ammunition is loaded, carried and delivered much like its explosive counterparts, little, if any unique training is required for chemical employment. In wartime, this would also make it very difficult for us to know which type is ready for use until it strikes our troops. In addition to a large, flexible catalog of delivery mechanisms, Soviet weapons offer a wide range of chemical effects. Our airfields and other deep targets are at considerable risk to attack by persistent chemicals, the effects of which may last for several days. Although their capability is not precisely known, the Soviets enjoy an unquestionable advantage over NATO forces in every aspect of chemical warfare. There is today a superior Soviet chemical advantage which translates into such significant military promise that the use of these munitions and agents is a very attractive option for any Warsaw Pact campaign. We must be prepared to operate on a chemically contaminated battlefield.

Chemicals employed against unwarned, unprepared targets can render them almost instantaneously and totally ineffective. Chemicals used against even warned, prepared targets result in a severe reduction of capabilities and combat effectiveness. Protection from chemical agents is provided by clothing and equipment which severely limits the operational functioning of individuals and units. Use of these items imposes a debilitating and exhausting burden on personnel who must continue to perform their tasks while dressed in chemical protective gear. Based upon our own field experiences, we estimate that individual combat efficiency may be reduced by 30 to 50 percent, depending on the types of tasks required. This loss in efficiency will be magnified proportionately as our soldiers are required to perform their combat crew functions. U.S. forces will thus experience an extraordinary degradation of mission effectiveness. Warsaw Pact forces, who will be able to pick and choose the time, place, type and extent of chemical employment, must not be allowed the freedom to degrade our capability with no corresponding hindrance to themselves. Enemy employment of chemicals at communications nodes, at senior headquarters, and at logistics terminals promises effects far beyond costs or risks involved in achieving the same results by other means. Combat support and combat service support activities are preferred targets for persistent agent attacks. The success of reinforcing operations could be severely impaired by chemical strikes against arrival airfields, ports and equipment storage (POMCUS) sites.

Medical forces are not prepared to cope with mass casualties which will result if chemicals are introduced to the battlefield, not to mention the civilian communities adjacent to the combat area. Militarily effective preventives and treatments have not been developed nor tested. Those antidotes which are being used are dangerous in themselves. Provisions for coping with the huge numbers of military and civilian casualties resulting from the use of chemicals are inadequate.

The potential burden of psychological casualties is not well understood. Nevertheless, in addition to the massive influx of wounded and chemically contaminated troops, we must be prepared to encounter a secondary phenomenon of psychological trauma, prompted by the very protection we must effect on the chemical battlefield. Even with the most highly trained soldiers, the perception of sensory deprivation while wearing the necessary protective garments and loss of normal communication means, will degrade combat effectiveness. In short, we must take every action aimed at reducing the risk that any nation will resort to first use of chemical weapons. That means having a credible retaliatory capability.

General DONNELLY. Mr. Chairman and Members of the committee. The 1899 Hague Peace Conference Resolution on the use of "Asphyxiating or Deleterious Gases" did not thwart the advent of chemical warfare in World War I. Chemical capabilities in that war were decidedly imbalanced. As the use of point gas approximately doubled each year, the casualty total grew to almost 1,300,000, of which 73,000 were U.S. troops.

In contrast, Axis powers believed that chemical capabilities were equal at the outset of World War II. Our actual deterrent was amplified by a vigorous deception program that the Nazis thankfully believed. There were no gas casualties in World War II. The imbalance we face today is much closer to the situation before World War I. The Soviets would be greatly tempted to employ their chemical advantage in a conventional war. I would like to make a few remarks on how that temptation applies to our air power.

Because we operate from fixed facilities, the Air Force requirements for collective chemical protection are more straightforward than those for highly mobile land forces. The USAFE program to install survivable collective protection shelters at our airbases will vastly improve our ability to sustain our chemical defenses. However, we, like the ground forces, are still faced with a decrease in operational effectiveness of up to 50 percent. That result is very much like destroying half our aircraft—50 percent fewer sorties the enemy has to worry about. Using chemical weapons, they can cut our sortie production in half with the first attack rather than stretching the task over many days. They can accomplish this with relatively few sorties, and with low attrition to their own forces. They need only maintain this attack until they can bring ground troops up to our air base. If General Otis and his troops are forced to operate in a one-sided chemical war, this may not take very long.

Meanwhile, if we're flying at a 50 percent sortie rate, we're inflicting 50 percent less damage to Warsaw Pact forces. If this prevents us from gaining air superiority, and if they are unimpeded by allied chemical attacks, their advantage is more than doubled. The chemical effects would be even greater on our reinforcing squadrons, who may arrive at an already contaminated airfield. Chemical attacks will certainly affect wartime morale. The severe psychological effects of a chemical environment are well documented, and without the knowledge that the enemy is enduring the same horrible environment, the spirit of our troops will not remain untouched.

We have no capability to respond quickly and effectively to create the same degradation among Warsaw Pact forces. Our only chemical bomb is the MC-1, which is a standard 750 pound bomb modified to carry 100 kilograms (220.5 pounds) of GB agent. GB is a nonpersistent agent which, at its impact point, will dissipate within an hour under most conditions. Two hundred feet away from impact, one could virtually hold his breath until it dissipates. Also, because these bombs detonate on impact, much of the agent is harmlessly absorbed into the ground.

Our only other chemical munition is a nonreusable spray tank, the TMU-28/B, which contains 590 kilograms (1,301 pounds) of VX, a persistent nerve agent. This spray tank could lay a broad swath of VX that might persist for days—a very effective deterrent 20 years ago when it was produced. Today's problem is the delivery profile. At release, the aircraft must be at 300 knots below 500 feet for optimum delivery. By flying this required low and slow "crop duster" profile over today's heavily defended Soviet targets, we may well run out of aircraft before we use half of our spray tanks. Incidentally, the TMU-28 was developed for the F-100, adapted to the F-105 and the F-4C, and recently modified against for the F-4E. It will not fit on the F-16 which is replacing the F-4. With MC-1, nonpersistent agent bombs, we can create some short-term degradation. However, their chemical gear is designed to protect against this type of threat. To compel them to maintain a long-term debilitating protective posture, we would have to attack each location several times a day.

In a few instances, we may be able to surprise a deep target and inflict significant casualties on unprepared personnel.

We could also employ the TMU-28 spray tank against a small number of critical targets that would justify the losses we will take during delivery. The persistent VX agent would force a long-term protective posture that will probably be as bad as ours. The spray tanks will work if we get through the defenses. We just don't know how long we can maintain the effort or what the cost will be in aircrews and aircraft.

General OTIS. Stocks of chemical munitions available to USAREUR are limited. They consist of persistent and nonpersistent artillery rounds. Presently, we can influence the battle with chemicals only within the range of these weapons, or about 15 kilometers from the forward line of troops. Thus, our present capability can reach only those enemy units which have the best protection. The less protected and hence more vulnerable units, that is, those farther back and those which provide the enemy's command, control and logistics base are not at risk from land-delivered weapons. They are out of range. Moreover, our limited quantities of chemical weapons make any response a token one, at best. We must have a longer-range surface delivery system compatible with a relatively persistent chemical warhead to enable the ground force commander to influence the battlefield in his area. A chemical capability for MLRS would meet this need. In addition, there is a need for an improved chemical capability for short-range artillery. Our present stockage of persistent artillery rounds is not suited for today's fluid battlefield. We need a reliable nonpersistent agent system to keep the enemy front-line troops "buttoned up" and degrade their combat power. The proposed 155mm GB-2 round, with its extended range, would give us additional flexibility.

As soldiers in combat, we are all required to take certain risks. However, I am concerned that there is an unnecessary safety hazard to our soldiers with our current artillery rounds. They haven't been fired or tested in over 15 years. Our artillerymen really don't know what to expect when they fire these rounds. Binary ammunition is safer to store, transport and employ. Vulnerability to battle damage, leakage, and unconventional warfare is greatly reduced with binary. Our soldiers deserve better.

The Warsaw Pact conventional advantage in Europe has already caused General Rogers, as SACEUR, to express the probable need for early release of authority to employ nuclear weapons. The impact of Warsaw Pact chemical weapons employment, combined with our lack of capability to respond in kind, will shorten the time span between the out-break of hostilities and the need for employing nuclear weapons.

As long as Soviet forces can operate with chemical weapons without being placed at equal risk, an asymmetrical force correlation will exist. An effective chemical defensive posture must be underwritten by a viable chemical retaliatory capability. Availability of chemical delivery systems with the necessary ranges and choices of agents is critical to deterrence. The capacity for chemical attacks against first and second echelon units, command and control activities, key logistics facilities, airfields, and nuclear-capable units, can degrade Soviet sustainability and, correspondingly, will deter initiation of chemical warfare and encourage termination if deterrence fails.

General DONNELLY. The Bigeye program has sometimes been criticized by claims that it will only produce another VX weapon, which we already possess. Beyond giving our pilots a more reasonable chance of returning from their mission, I would like to offer several other comparisons between Bigeye and the TMU-28.

Bigeye gives us an improved capability to put an agent on the target, and to put it only on the target. The TMU-28 cannot be turned off. Once activated, it dispenses over 1,300 pounds of VX no matter what size the target. With Bigeye, we load the number of bombs we need.

To double the concentration with a spray tank, we could make two passes over the same area, or fly over at half speed. Our pilots will do that if ordered to, but those are difficult orders to give. To double the concentration with Bigeye, we just cut the interval between bomb releases.

The TMU-28 presents grave storage hazards in a combat zone—especially when removed from the shipping container for loading. There are also contamination hazards with the TMU-28. Dispensing results in aircraft contamination, and if an aircraft is shot down or a tank jettisoned en route to target, serious unintended civilian casualties can result. The binary's component chemical mixing process is designed to avoid these problems.

Moving of unitary chemical weapons is also a logistic nightmare. The 2,000 pound TMU-28 weights 6,000 pounds in its shipping container. Binaries do not need that kind of protection.

I would like to talk a moment about the casualties inevitable in a chemical war. If an airbase is warned of attack so that our people have assumed a full protective posture, we still expect casualty levels up to five percent. We know that our gear is not perfect, small amounts of agents will get through; and there will be torn gloves, filters that get saturated, and many little mistakes people are bound to make. These can be deadly in such an environment. We don't have the data to predict casualties resulting from long-term low-dosage or repeated exposure, but it will certainly be in excess of five percent. If, as expected, the Soviets combine chemical with explosive attacks, there will be synergistic effects, causing many more casualties than both attacks conducted separately.

Some of the massive chemical weapons available to the Soviets can result in exposure of civilian populations up to six miles downwind. We estimate casualty levels in excess of 70 percent for unprotected air bases—certainly civilians would fare no better. And without protection or proper medical treatment, many not killed immediately would later succumb to cumulative effects. This could easily generate desperate efforts to escape exposure, blocking primary ground transportation routes, snarling normal communications, and creating chaos at port and commercial air facilities. Beyond the inevitable blockage of vital military movements, the suffering and loss of life among civilians is impossible to estimate.

Finally, I would like to offer some thoughts on two related issues—nuclear deterrence against chemical attack and the proliferation of chemical weapons. We have been carefully strengthening our conventional forces in Europe so that we have an alternative to nuclear escalation. There is a distinct difference between the level of warfare represented by nuclear exchange and that of conventional, albeit chemical, warfare. Lack of a credible chemical deterrent, at best, lowers the nuclear threshold we have worked so hard to raise. We also beleive a serious danger exists that chemical weapons would be used in conflicts other than a superpower confrontation in Central Europe. We know for certain Iraq and other countries in the Middle East have chemical weapons. If we cannot present a credible deterrent to chemical use in minor conflicts, our forces may be extremely vulnerable. Overall, our and our allies capabilities for sustaining combat operations in a chemical environment are marginal at best. The lack of a credible retaliatory system is placing too great a burden on allied defensive measures. Chemical defensive improvements by themselves will not enable us to deter the initiation of chemical warfare, to sustain operations on the contaminated battlefield, or to terminate chemical warfare early if initiated. We must have an improved retaliatory capability as well.

The distinct threat of Soviet chemical weapons cannot be ignored. It provides them with the means to change the course of battle at will. The gross imbalance that presently exists, in their favor, effectively negates our conventional force improvements, and places dangerously inappropriate reliance on our nuclear force.

General Otis and I are asking you to provide us with the means to prevent a chemical war. We need your support.

Chairman GOLDWATER. You may proceed as you wish.

General OTIS. I would like to introduce Sfc. Jack Schaffer, the soldier here, who is in the normal battle dress uniform with no chemical gear. This is Sergeant Shaffer.

Here on your left is Sgt. Harry Bullick who is an E-5, buck sergeant, squadron leader in the infantry. He is dressed in the beginnings of a chemical posture. Now let me turn this over to Sergeant Shaffer who will describe the short demonstration and take Sergeant Bullick through his procedure.

STATEMENT OF SFC. JACK SHAFFER, ACCOMPANIED BY SGT. HARRY BULLICK

Sergeant SHAFFER. As you see, Sergeant Bullick is in the first level of what we call mission-oriented protective posture. This level is achieved by wearing just a jacket and pants with sets of chemical protection paper around three areas.

The second level of protection would be adding the protective booties.

Chairman Goldwater. What would this protect him against?

Sergeant Shaffer. It is just a level of preparedness. It is not a level of protection actually. As you can see, the booties that Sergeant Bullick will be donning is a universal size. It is not designed for a specific size, but for all boots.

There is a drawback in wearing this bootie. It is cumbersome; it is difficult to mount and because of its design, it may be removed or come off in a muddy or brush-type environment.

FIELD MASK

I noticed one of the Senators asked about the protective mask. I would like to talk about that mask.

This is the field mask. There are three different types of masks, one designed for the common soldier, which I have now. There is a tanker's mask and also an aviator's mask. All three are designed to the same purpose. Each one has a slightly different type of function.

There are actually two different pieces of equipment you see before you. There is a protective hood that goes over the upper body and the mask itself. You notice I wear glasses. All soldiers that wear glasses are issued a type of glass that fits inside the mask. This is not an integral part of the mask, but a separate piece of equipment given to the individual soldier.

As he goes from station to station, he takes these glasses with him and just inserts them into the new mask.

Also a soldier will carry on his individual person a nerve agent antidote. There are three of them carried in his protective mask.

Also he will carry a different type of protection paper. I think they are all in those masks that you have, and a waterproof bag. This bag is to be utilized in inclement weather or river crossings, and so forth, in order to protect the mask.

In the bag pack he will carry the individual decontaminating kit. This kit is used for his body, or person, and his equipment. Unfortunately, it is limited in its use and the amount of area it will cover, but it is effective.

Chairman Goldwater. That is on the uniform.

Sergeant Shaffer. No, sir, not the uniform. The uniform itself is designed to absorb and neutralize chemicals. It will be utilized on exposed skin areas or if soldiers got in contact with chemicals prior to being able to don this uniform.

This uniform, by the way, if the threat is such, is mark level one, as Sergeant Bullick came in. Our unit is deployed wearing that. It is an automatic level of protective posture we assume.

This antidote comes in two parts. There is an atropine and 2 Pam chloride. He first removes the atropine from its carrier, feels his hip to ensure there is no obstruction, presses this against his hip. It is spring-loaded automatic injections. He holds it for 10 seconds, removes the first injector and holds on to it, then takes the second injector and applies it the same way.

Once he has done that, he would pin it to his lapel. The reason is if he becomes a further casualty or suffers from nerve agent poison, advanced stages of nerve agent poisoning and passes out, whatever medical help would come along would know exactly how much nerve antidote he received.

There is a problem with this or a negative factor with this. The nerve agent and antidote itself has a debilitating effect on the soldier. If he misreads his symptoms and gives himself this, he makes himself a casualty.

At the next level of protection, Sergeant Bullick will assume protection level three. Now we are getting into the advance stages of protection. That is, donning the protective mask.

During combat conditions, Sergeant Bullick would have 9 seconds to put his mask on and check it; 6 seconds to zip that closed. The rest of the procedure is normally covered under a buddy-type system. His buddy will ensure that the strap is pulled down, that the hood is completely covering the exposed portion of the skin, that the drawstring is pulled tight.

Sergeant Bullick is now in mark level protection three.

The last stage, the most advanced stage, we can assume is mark level four. Mark level four involves putting on the protective gloves.

General OTIS. Sergeant Shaffer, while he is doing that, Mr. Chairman and Senators, you have in front of you the mask, the hood, and the set of those gloves in case you wanted to try on any part of that.

Sergeant SHAFFER. There are two different types of gloves, a cotton inner liner and a rubber glove or outer liner. This serves two purposes, to absorb whatever moisture from wearing this ensemble, also it facilitates or assists in putting on the rubber glove.

If you notice, Sergeant Bullick is tucking the gloves underneath the sleeves. Also his pants overlap the top of his boots. This is to ensure no liquid contaminants will or can come in contact with skin.

Now, if we were to add some normal type of gear a soldier would be expected to carry, this being a digital message device, also he would be expected to carry a radio as a squad leader, you see before you a soldier representing a forward observer for an artillery outfit under a contaminating condition expecting to go to war.

MASK PRESENTS PROBLEMS

Sergeant BULLICK. The mask presents some problems. One problem is communication. It is difficult to communicate on the normal battlefield, but wearing it, this becomes impossible to communicate at long distances.

Another type of communication is visual, hand signals. As you see, my field of vision is limited. It makes it more difficult to communicate with the squad.

The Army estimates that mark three cuts efficiency down 50 percent. I have seen my men totally exhausted after a few hours wearing these garments.

Also in firing of weapons, there is a different way of holding the weapon.

IMPLICATIONS IN COLD WEATHER

Senator **Denton**. What would be the implications of extremely cold or extremely hot weather in affecting endurance or perhaps additional clothing in the case of cold weather?

Sergeant **Shaffer**. It has been our experience under cold conditions, we don't have problems getting our soldiers to put this on.

Senator **Denton**. I mean is it enough as it fits right now for 20 degrees below zero?

Sergeant **Shaffer**. As a matter of fact, that is one of the considerations we have in Europe, to issue sizes to accommodate the cold weather gear the soldier would normally wear. He would put this over it.

It is not necessary to have this type of uniform on in order to wear that. He could just go in his underwear under hot conditions. But at 60 degrees, you are sweating.

IMPLICATIONS IN HOT WEATHER

Senator **Denton**. Any studies on what it does to a man's endurance at 90 degrees?

Sergeant **Shaffer**. I am not aware of that. Our personal experience shows that under extremely hot conditions it is murder.

Sergeant **Bullick**. On that question there was a study done at different degree levels where after working approximately an hour a man will have to receive 20 minutes or so rest. If he were fighting a war, he would not have time to take rests.

Chairman **Goldwater**. How long does it take the average GI to put that gear on?

Sergeant **Shaffer**. Our Army standard going from what I am wearing now to what Sergeant Bullick is wearing is 8 minutes.

Chairman **Goldwater**. Can they all do it?

Sergeant **Shaffer**. Yes, sir, we are tested.

Chairman **Goldwater**. Is that long enough?

Sergeant **Shaffer**. Yes, sir.

Senator **Thurmond**. How is the accuracy of your weapon when you have the equipment on? Is it difficult to manipulate?

Sergeant **Bullick**. Holding the weapon and getting the proper sight you have to hold the weapon differently.

Another problem is with antitank weapons.

Senator **Warner**. Those of us who have carried a backpack in years past are familiar with the weight and the cumbersomeness of your ordinary equipment.

By what percentage does this increase a soldier's weight and bulk that he has to carry into a combat situation?

Sergeant **Shaffer**. Sir, I am not sure of an exact figure, but I would estimate about 20 percent.

Senator **Warner**. May be a quarter of your burden now of equipment on a battlefield is lugging around what you need in the off chance one of these weapons is going to be used by the enemy?

Sergeant **Shaffer**. Yes, sir.

General **Otis**. Mr. Chairman, with your permission, sir, Sergeant Bullick and Sergeant Shaffer will be standing by for questions and other comments.

I would like General Donnelly now to show you his demonstration of what this means in Air Force terms?

Chairman GOLDWATER. Thank you, gentlemen.

General DONNELLY. First of all, Mr. Chairman, Air Force ground crew and all other people wear this basic chemical gear the same as the Army does. However, the pilot, as you can imagine, cannot operate an aircraft with the gear. So, we have special gear for the fighter pilot.

Capt. Mike Carlson, Air Force Academy, 1980, over a $1 million investment in a tactical fighter pilot, is going to show you how he is going to get ready to fly his F-4 into combat. Captain Carlson has a BS in electrical engineering and is a native of Hastings, MN.

T. Sgt. Durton Penn, by the way, one of our fine tech sergeants, is NCOIC of squadron life support at Ramstein. Sergeant Penn is a native of Barnesville, GA, and is a graduate of Booker High School. He has had several overseas tours, including 24 months in Germany, 18 months in Vietnam, and 15 months in Libya.

STATEMENT OF T. SGT. DURTON PENN

Sergeant PENN. It takes 35 minutes.

Chairman GOLDWATER. It takes him 35 minutes to get dressed to take an F-4 up?

Sergeant PENN. Yes.

Chairman GOLDWATER. Thank you.

Sergeant PENN. The first thing to put on is long underwear. They have a tube sock that goes over their regular sock.

Chairman GOLDWATER. That is on the shoe?

Sergeant PENN. No, sir, on the socks.

Chairman GOLDWATER. General, how much time does this airman have to know there is going to be a chemical warfare attack?

General DONNELLY. Sir, he doesn't have any warning at all because the type of weapons the Soviets have, just about every one of their conventional deterrent systems has a chemical capability, a chemical warhead.

Basically as he leaves their chemically protected building, he will be dressed this way all the time.

Senator DENTON. When I put my helmet on, it clouded up from inside which would affect a soldier and, worse I guess, an airman.

DEFOGGING PROBLEMS

Do you have equipment that defogs it or not?

General DONNELLY. Again, you will see him put on his helmet. Yes, we have some defogging problem, we have some defogging liquid we put on the inside. Once he is in and has the oxygen hooked up, he can get the drying effect inside the mask.

Senator WARNER. Gentlemen, a chain is no stronger than its weakest link. While you are putting on the boot, and socks, and helmet paraphernalia, presumably it could work itself in a crack or zipper and something else and completely debilitate the individual.

You have done the best you can to design the equipment, but one crack or one tear and any part that is exposed renders ineffective what you have done.

General **Donnelly**. In the fighter squadron most of our squadrons are hardened, both for chemical and conventional. So, that this man will have been decontaminated having gone into the squadron. Then he puts on this clean equipment before he leaves to go back out and fly.

General **Otis**. In the ground environment the Soviet doctrine calls for him to intersperse his chemical weapons delivered by artillery with high explosive rounds. Once you get into the gear, you saw earlier any round or any bullet puncture whatsoever of that complete protection puts you totally vulnerable to the agents.

Sergeant **Penn**. This is the first stage. Once an incoming round starts, then he will put on the gloves, step in the aircraft, he will put on his harness.

Chairman **Goldwater**. When you are in the ready room, you are going to be dressed like that?

STATEMENT OF CAPT. MIKE CARLSON

Captain **Carlson**. Yes, sir.

Chairman **Goldwater**. Regardless of what goes on?

Captain **Carlson**. Yes, sir.

Sergeant **Penn**. We put the gloves on, they are sealed at the cuffs.

Chairman **Goldwater**. He puts that on before he leaves the ready room?

Captain **Carlson**. Yes, sir.

Senator **Warner**. Gentlemen, a question while we are observing this.

How long will your troops be able to remain in this gear realistically in a combat environment?

General **Otis**. First, on the Army side, Senator Warner, we practice 6 hours at a time. In terms of a persistent agent attack, especially those attacks on rear areas, fixed sites where our communications, logistics, and support people must continue to operate much like the Air Force, then they are going to have to exist that way for literally days.

Senator **Warner**. Do you have any statistical base to indicate that they can exist?

General **Otis**. I have no statistical information.

Senator **Warner**. It is purely theoretical then?

General **Otis**. That is correct. Since 1969 we have not had any testing of things in that way, but we do regularly practice for up to 6 hours at a time in the full gear that you saw earlier.

Senator **Denton**. I would think you would make your point a lot stronger if you made some tests. After a half hour looking at radar the guy would be 0.05 in efficiency.

General **Otis**. One of the tests we have had that does not address the sustained period you asked about, Senator Warner, we have done some very large-scale tests inside the tanks, put the loader in this kind of gear and then go into combat action.

The loader becomes debilitated very rapidly. I have personally participated in that. That is why our new tanks are going to a cooling system built into the tank itself.

Senator WARNER. Your situation is not unlike the Navy, namely that the Soviets have put more devices into their tanks and other armored vehicles, so I am told, to withstand the effect of chemicals than have the U.S. and NATO forces.

General OTIS. You are correct.

Senator WARNER. Tank for tank they have a built-in advantage right away because they have some measure of protection.

General OTIS. They have built in an overpressure system as well as collective protectors.

Senator WARNER. Which we do not have?

General OTIS. That is correct.

Senator WARNER. This all lends credence to the thought it would be distinctly advantageous for them to have first use of this type of chemical warfare?

General OTIS. That is correct.

Senator THURMOND. I have some questions for the record.

General DONNELLY. The pilot is ready to leave the fighter squadron now. He is going out to the airplane.

Chairman GOLDWATER. You have three pairs of gloves on?

Captain CARLSON. Yes, sir.

Chairman GOLDWATER. How does the trim switch feel to you?

Senator GLENN. Can you pick up a nickel there? No fair sliding it off the edge. [Laughter.]

Chairman GOLDWATER. When does he take that sheaf off?

General DONNELLY. He takes that off as he gets on the ladder to get into the airplane and takes off his boots in case he has picked up any contamination on the sheaf as he goes out to the aircraft.

Once he gets in the cockpit you can see he is very limited in his visibility to fight a war with all his peripheral vision gone.

Senator THURMOND. He is going to take off the cover as he enters the plane?

General DONNELLY. Yes, sir. The ground crew takes care of it because it probably has some contamination on it.

Senator GLENN. He can't go by himself. Is the ground crew running around in baggies all the time? How are they protected?

General DONNELLY. They have the same suit as Sergeant Penn does, sir. The same as the Army suit.

Sergeant PENN. The same mask, same gloves.

Senator WARNER. When he flies the airplane he doesn't have the ordnance?

General DONNELLY. Yes, sir, he has the ordnance.

Senator WARNER. I mean to retaliate like the Soviets have in this type environment.

General DONNELLY. That is right. If he had our spray tank, he would be taking off in an F-4 only because no other aircraft can carry it currently.

In order to deliver it, he would have to slow down to 300 knots, below 500 feet, to deliver that spray. That is very bad longevity and the insurance actuarial tables go to heck at that point.

Senator WARNER. That is the only ordnance you have?

General **DONNELLY**. We also have the nonpersistent bomb. Again, we lose 60 percent of that as soon as it hits the ground. It is absorbed by the ground after it hits the ground.

Chairman **GOLDWATER**. Let us get the questions started.

Senator **GLENN**. Let me ask one thing.

The average fighter pilot in Europe you would not be sending him out like this on every mission? It is only when intelligence tells you that a chemical attack is coming?

General **DONNELLY**. We don't know when an attack is coming. If they fire a FROG or SCUD, they have an opportunity to put a conventional or chemical warhead on it. If he doesn't get a protective mask on in 9 or 10 seconds, he is a casualty.

I am going to have to move him back and forth to the airplane basically all the time in this environment.

Senator **GLENN**. Are fighter pilots in Europe dressed like that on every mission?

General **DONNELLY**. No, sir. They would be in combat. Since our aircraft don't have chemical filters on them, as he comes home through a chemical cloud with just the normal stuff you used to wear and we still wear, then he would be a casualty inside his own aircraft unless he had this equipment on.

Senator **GLENN**. This so impairs a fighter pilot's operations it is difficult to think of his operating effectively in a combat environment dressed like this.

I would think you would be relying on intelligence information as to when you should dress like this or is this to be your normal combat dress?

General **DONNELLY**. Intelligence can't tell us when they upload a conventional weapon or chemical weapon.

Senator **GLENN**. Why aren't you having people dressed like this all the time on every mission now?

General **DONNELLY**. We do it frequently during the week and during the month certainly as part of the training. It is dangerous gear, as you can see, for normal day-to-day training. We do it very carefully as we train in that environment.

Senator **GLENN**. On specific types of chemicals you are trying to protect against here, can you give us a rundown on what types of chemical weapons this will deter or not deter? Can you give us a threat assessment of what we are up against?

General **DONNELLY**. Basically the filter is the same. General Otis has a list in front of him.

TYPES OF SOVIET WEAPONS AND GAS

Senator **GLENN**. What types of weapons do we know the Soviets have, what types of gas, what will it penetrate?

General **OTIS**. Sir, I cannot give you a complete rundown. I can tell you the Soviets are credited with both persistent and nonpersistent agent and they have blood agents in addition to some incapacitants as well as lethal ones.

Senator **GLENN**. Are there gases that will go through this type of equipment here?

General **OTIS**. Sir, in this session I cannot answer that.

Chairman **Goldwater**. I will answer it for you. They have. You did not say that, I did.

BIOLOGICAL WARFARE

Senator **Glenn**. How about our people on biological warfare now? We have little or no, I guess, capability to lay down things like wheat rust and spores.

What kind of capability do the Soviets have in that area that we have seen rumors of in the paper from time to time?

General **Otis**. I cannot answer the question. I believe our next witness will be able to address that.

General **Donnelly**. Dr. Welch can answer that.

Chairman **Goldwater**. I would like to ask the pilot.

You fly an F-4?

Captain **Carlson**. Yes, sir.

Chairman **Goldwater**. Have you flown an F-16?

Captain **Carlson**. No, sir.

Chairman **Goldwater**. An F-15?

Captain **Carlson**. No, sir.

Chairman **Goldwater**. You don't have much room in those vehicles.

Captain **Carlson**. No, sir, there is not.

Chairman **Goldwater**. Do you have any trouble in maneuvering the F-4? Can you do a fast roll as fast as you want to?

PERIPHERAL VISION LOST

Captain **Carlson**. Physically flying the airplane, you can pretty much do whatever the airplane can. The trouble comes in visibility and dexterity of the fingers, especially the visibility looking around and checking, you lose your peripheral vision.

Also the heat gets you dehydrated.

Chairman **Goldwater**. Does it affect your formation?

Captain **Carlson**. Sir, only to the extent that over a long period of time it will degrade you just from the physical exhaustion.

Senator **Glenn**. Can you see around the cockpit restricted by the mask, check the panels back here to really see and check switches?

Captain **Carlson**. That is one of the problems you have. It is not easy to take a glance at a switch or meter. You have to move your head and make a constant effort. Even so, when in the midst of flight, you have to feel the switch and see what you are doing.

Chairman **Goldwater**. That is a terrible way to dress in order to fly an airplane, that is all I can say.

General, let me ask you a question. I should have asked General Dixon this, too.

You are going to make the first sortie against an enemy field.

General **Donnelly**. Enemy field?

Chairman **Goldwater**. Yes.

PREFERENCE OF CONVENTIONAL OR CHEMICAL WEAPONS

Would you prefer doing it with conventional weapons or with chemical weapons that would render their ground crews incapable of getting their aircraft into the air?

I know that would be a limited time, but which would be the most effective?

General DONNELLY. If you put me in the role of the Soviet decisionmaker, I would prefer that.

As a U.S. commander, I would have to prefer conventional because I don't have any system currently to attack the Soviets with chemicals.

Chairman GOLDWATER. That is a pretty good answer.

General Dixon, you would give the same answer, I presume?

General DIXON. Senator, I did plan a Soviet attack, which answers your question, in our study. I laid chemicals all over you.

Chairman GOLDWATER. That is a big problem. Like a commander in the field having to make the determination whether you are going to use tactical nukes on your first attack after you have been attacked by the same or you have to write a letter home to Washington to find out if you can employ them.

General DONNELLY. Yes, sir. It will be a tough decision at any time to use anything more than a conventional weapon. There is no question about that.

Chairman GOLDWATER. Senator Warner?

Senator WARNER. Thank you.

CONCERN FOR TROOPS AND FAMILIES

General Donnelly and General Otis, both of you have expressed concern for your troops and airmen, but particularly in the case of the Air Force, and having visited many of your bases, suddenly in a chemical environment every single human being becomes a combatant. You are talking not only about your pilots and your ground crews, but you are talking about families, you are talking about civilian personnel that are colocated on the air bases. Suddenly the numbers begin to multiply.

What is the total number of families and civilian personnel you have under your command in Europe?

General DONNELLY. We have about 93,000 military people. You triple that, almost 300,000 including families and civilians.

We would hope that we would get sufficient warning from the intelligence system that we would be able to evacuate our dependents.

Senator WARNER. We are dealing with a few minutes time for the pilot to get out of the aircraft and most of those strips are not far distant from the families or civilian personnel. Even a stray round that misses its target is likely to drop in that complex.

General DONNELLY. Some of the equipment we believe they have, the weapons, you will get chemical persistency about 6 miles downwind with a reasonable breeze.

So that anybody in the way of that particular cloud will in fact be affected and unprotected, depending on where you are in that cloud, about 70 percent casualties.

Senator WARNER. They have no protective equipment?

General DONNELLY. None whatsoever.

Senator WARNER. So, everybody becomes a casualty in this situation and the numbers are quite large. Indeed, under your command, while somewhat removed from the forward echelons, it is not that distant. I suppose the infrastructure is 1 million or more, is it not, in terms of families and civilians?

General OTIS. The specific number is 230,000 soldiers, 170,000 family members, and another 100,000 civilian workers of both American and local nationals. That totals a half million.

Senator WARNER. Half a million Americans?

General OTIS. That is correct. That does not count tourists, State Department, and many others.

Senator WARNER. Thank you, sir.

General OTIS. One question you asked earlier and I would like to give you a better answer.

I am informed in the United States right now there is a very detailed test of durability, how long one can endure doing normal work of the infantry and others in full chemical gear. It is being done by the Training and Doctrine Command.

Chairman GOLDWATER. Is that in the Pentagon?

General OTIS. The study is ongoing now.

STATEMENT OF COL. BOB ORTON

Colonel ORTON. We have tests in an experimental scenario going on now at stages at Fort Hood under the sponsorship of our Training and Doctrine Command to validate the baseline of what it does, what an operation consists of, platoon company up to battalion level without the chemical gear and then with the chemical gear and measuring the degradation.

Chairman GOLDWATER. When that is finished, will you make that available to this committee so that we can make it a part of the record?

Colonel ORTON. Yes, sir.

[The information follows:]

COMBINED ARMS IN A NUCLEAR CHEMICAL ENVIRONMENT (CANE), FORCE DEVELOPMENT TEST AND EXPERIMENTATION (FDTE) STATUS REPORT

EXECUTIVE SUMMARY

Background.—The Combined Arms in a Nuclear/Chemical Environment (CANE) Force Development Test and Experimentation (FDTE) was deemed necessary as a result of several high-level reviews of the current status and capabilities of US Army units in Nuclear, Biological and Chemical (NBC) operations. Its conduct is vital to determine how well the Army can fight in the environment in which it can be expected to fight. Currently available data has several weaknesses. It is generally based on outdated doctrine, organization, training and material; does not address combined arms force interactions; and does not adequately analyze the effects of sustained operations.

Purpose.—The purpose of the CANE FDTE is to provide measured data and realistic field experience for combat, combat support and combat service support operations in the nuclear/chemical environment of the integrated battlefield. Understanding the interactions and interdependence of force structure, doctrine and materiel for combined operations in a sustained, integrated battlefield environment is essential to validate emerging concepts and requirements and for a high level of confidence in the combat development process.

Scope.—The CANE FDTE is designed as one test with three phases:

Phase, level and date

I: Squad/platoon, February-May 1983.
II: Company/battalion, 1985-86.
III: Battalion/brigade, 1987.

Emerging results.—Some of the more significant results from CANE I show that when chemical protective gear is used:

There is an 82% increase in time to complete attack.
There is a 130% increase in US armored vehicle losses.
There is a 360% increase in fratricidal engagements.
There is a 32% greater chance of being killed.
All soidiers dehydrated; 83% were severely dehydrated.
Leaders, command and control functions deteriorated markedly.

SECTION 1.—GENERAL

1-1. *Background.—a. Requirement.*—The Combined Arms in a Nuclear/Chemical Environment (CANE) Force Development Test and Experimentation (FDTE) was deemed necessary as a result of several high-level reviews of the current status and capabilities of US Army units in NBC operations. Its conduct is vital to determine how well the Army can fight in the environment in which it can be expected to fight. Currently available data has several weaknesses. It is generally based on outdated doctrine, organization, training and materiel; does not address combined arms force interactions; and does not adequately analyze the effects of sustained operations. Quantified data on force degradation is needed to better focus training, force design and equipment development programs.

b. *Army Working Group.*—In January, 1980 an Army Working Group met to determine the adequacy of current test data on combined arms operations in an NBC environment. The working group consisted of representatives from Headquarters, Department of the Army (HQDA); Headquarters, US Army Training and Doctrine Command (TRADOC); Headquarters, US Army Forces Command (FORSCOM); US Army Operational Test and Evaluation Agency (OTEA); US Army Nuclear and Chemical Agency (USANCA); US Army TRADOC Combined Arms Test Activity (TCATA); and the 82d Airborne and 1st Cavalry Divisions. The group confirmed an urgent need for a "brigade slice" sized test to resolve the unknowns of NBC operations due to:

Growing threat; lack of field experiences essential for materiel and doctrine development; restrictions on live agent exercises; quick fix solutions without adequate evaluation since 1975; lack of coordinated tactical and NBC defense doctrine; little emphasis on unit level NBC defense in field training exercises; and lack of adequate data for wargaming simulations.

The judgment of the working group was that these and other factors have had a cumulative effect which now constrains progress in materiel and doctrine development as well as force design and force structure.

c. *Defense Science Board.*—The Defense Science Board 1980 Summer Study Panel on Chemical Warfare concluded that degradation factors caused by sustained operations in chemical warfare (CW) protective clothing require evaluation and definition under realistic conditions. The panel also concluded that conduct of operational tests (OT) and large scale exercises in prolonged full Mission Oriented Protective Posture (MOPP) with exposure to CW simulants was essential to validate CW requirements and doctrine. The panel recommended that the Joint Chiefs of Staff (JCS) direct the conduct of major tests and field exercises with extended CW simulant exposure to provide data required to develop realistic doctrine, to identify weaknesses and requirements, and to quantify the effects of cumulative degradation.

d. *Army Chemical Action Plan.*—As a result of the May 80 Army Chemical SPR, the Army Chemical Action Plan identified several critical deficiencies highlighting the lack of adequate data on combined operations in a sustained NBC environment. The major deficiency was the lack of large unit, field test data on which to base concepts, develop doctrine, and verify force structure. This led to the recommendation to conduct an NBC FDTE to measure the interaction of force structure, doctrine, and materiel in a severe, sustained, integrated battlefield environment.

1-2. *Purpose.*—The purpose of the CANE FDTE is to provide measured data and realistic field experience for combat, combat support and combat service support operations in the nuclear/chemical environment (NCE) of the integrated battlefield. Understanding the interactions and interdependence of force structure, doctrine and materiel for combined operations in a sustained integrated battlefield environment is essential to validate emerging concepts and requirements and for a high level of confidence in the combat development process.

1-3. *Objectives.*—The objectives of the CANE FDTE are to:

a. To measure unit (collective) degradation in mission performance in sustained protective posture.

b. To obtain data on the effectiveness of the internal organization of the combined arms force, its supporting combat support and combat service support while operating for sustained periods in a nuclear/chemical environment on the battlefield.

c. To establish a data base for the construction of realistic and high confidence, integrated battlefield models which can support combat developments and training.

d. To gather data which shows the impact of today's training on the ability of a combined arms force to conduct its mission in a nuclear/chemical environment. Identify deficiencies in doctrine, training, materiel or organization.

e. To provide information on the capability of a combined arms force to detect, warn and report the presence of NBC agents in a timely manner (training, procedures, equipment, etc.).

f. To provide information on decontamination support requirements, both organic and external, for the combined arms force to meet its expected needs on the battlefield (equipment, doctrine, procedures, etc.).

1-4. *Test design.—a. Phases.*—The CANE FDTE has been designed as one test with three phases:

(1) Phase I: A squad/platoon level test conducted by the Combat Developments Experimentation Center (CDEC) at Ft Hunter Liggett, California. A highly instrumented, controlled exercise to measure individual soldier performance and small unit operations in a sustained nuclear/chemical environment.

(2) Phase II: A company/battalion level test conducted by the TRADOC Combined Arms Test Activity (TCATA) at Fort Hood, Texas. A less instrumented test (crew level) than Phase I with more emphasis on the degradation to the combined arms force due to sustained operations in a nuclear/chemical environment. Phase II will be subdivided into three segments to allow for simulation model validation.

(3) Phase III: A battalion/brigade level test which will include the appropriate combat support and combat service support slice to measure to overall affect on mission performance. The test will be conducted by TCATA at Fort Hood, Texas. This phase will be the least instrumented phase with considerable emphasis on exercise free play to allow commanders more latitude in weighing the protection afforded by protective gear against the degradation in performance as a result of wearing the protective gear. This phase will be the final validation of the simulation models.

b. *Methodology.*—The CANE FDTE will follow a model-test-model sequence as the test progresses from individual and small unit performance to the final "brigade slice" phase. Before each phase a computer model will be run to predict expected outcomes. The model will then be validated and refined from the data obtained from the test phase and used to predict the expected results of the next phase.

c. *Dates.*—

Phase and Date

I: February-May 1983.
II A: 3-23 April 1985.
II B: 6-26 November 1985.
II C: November 1986 (if required).
III: TBD.

SECTION 2.—CANE I

2-1. *Purpose.*—The purpose of Phase I of the CANE FDTE (CANE I) was to assess the degradation of a mechanized infantry platoon's performance attributable to participating in sustained (72 hours minimum) combat operations in a simulated nuclear and chemical environment. The results would be used to; support an assessment of combined operations in a nuclear and chemical environment, assist in the development of doctrine and procedures, and recommend changes to organizational design, training and materiel.

2-2. *Concept.*—CANE I addressed the impact of a simulated nuclear and chemical environment on the sustained combat operations of a mechanized infantry platoon, operating as part of a larger combined arms force, against an appropriate threat force in a mid to high intensity, Central European, air-land battle in the 1986 timeframe. The field test consisted of eight replications of a 72-hour period in which a mechanized infantry platoon, operating as part of a notional larger combined arms force, conducted sustained offensive and defensive combat operations in a simulated nuclear and chemical environment. A baseline for comparison purposes required a parallel set of field test replications be conducted in a conventional battlefield environment. In the conventional environment there was no expected or actual use of nuclear or chemical weapons nor use of individual protective equipment or other NBC equipment or support. The primary thrust was to develop data useful in estimating the degradation in performance due to operating in the nuclear and chemical environment as opposed to operating without such a threat.

2-3. *Scope.*—CANE I was a sustained platoon level force-on-force test conducted at Fort Hunter Liggett, California in terrain closely approximating that found in Central Europe. It consisted of two parts. Part I was a training and instrumentation trial (exploratory trial) conducted from 8-17 February 1983. Part II consisted of 16 trials starting on 1 March 1983. Eight trials were conducted in a non nuclear and chemical environment (baseline). The data from the baseline trials could then be compared to the data obtained from the nuclear and chemical environment trials. Each trial lasted at least 72 hours. The nuclear and chemical environment trials were structured so that all soldiers were in full protective gear (mask, hood, overgarment, boots and gloves) a minimum of 12 continuous hours. Physiological measurements of vital signs of selected soldiers were taken throughout this phase of the CANE FDTE.

2-4. *Major results.*—Some of the more significant findings show that when chemical protective gear is used:

There is an 82% increase in time to complete attack.
There is a 130% increase in US armored vehicle losses.
There is a 360% increase in fratricidal engagements.
There is a 32% greater chance of being killed.
All soldiers dehydrated; 83% were severely dehydrated.
Leaders, command and control functions deteriorated markedly.

SECTION 3.—CANE II

3-1. *Purpose.*—The purpose of CANE II is to provide information on the ability of a battalion task force, with supporting combat support and combat service support, to participate in sustained (72 hours minimum) combat operations in a simulated nuclear and chemical environment. The data will be used to support an assessment of combined arms operations in a nuclear and chemical environment to assist in the development of doctrine, to gather data for use in combat models, and to assist in making force development recommendations pertaining to organization, training and materiel changes.

3-2. *Concept..*—CANE II is only one element in a continuous model-test-model field evaluation/model validation sequence. CANE I was conducted at the mechanized infantry squad and platoon level at CDEC from February to May 1983. The results from CANE I will be used during the detailed test design of CANE II, and, in turn, the results of the CANE II field evaluation will be used to validate these models. CANE II will be conducted at the company and battalion level. The results of CANE II will serve as model and test design input for CANE III.

3-3. *Scope.*—During CANE II the model-test-model sequence will occur during three different test periods.

Phase and Date

II A: 3-23 April 1985.
II B: 6-26 November 1985.
II C: November 1986 (if required).

CANE IIA will be a highly instrumented series of subtests to be conducted during a 21-day period in April 1985, These subtests will provide high resolution data on specific activities for comparison of unit performance degradation between baseline and nuclear and chemical conditions. Results will be compared to the pre-CANE II simulation run and serve as input into larger simulation model. The output from this subsequent simulation will be used to guide the detailed test design of CANE IIB. CANE IIB consists of battalion-level force-on-force sustained operations to be conducted during a 21-day period in November 1985, (The British Army has been invited to send a company-size element to participate in CANE IIB.) If there are major differences between model predictions and the field evaluations, CANE IIC will be conducted during a 21-day period in November 1986.

SECTION 4.—CANE III

4-1. *Purpose.*—CANE III is the culmination of the CANE-series field evaluations. The purpose of CANE III is to evaluate the ability of a combat brigade, with supporting combat support and combat service support, to participate in sustained (72 hours minimum) combat operations in a simulated nuclear and chemical environment. The data will be used to support an assessment of combined arms operations in a nuclear and chemical environment to assist in the development of doctrine, to gather data for use in combat models, and to assist in making force development recommendations pertaining to organization, training and materiel changes.

4-2. *Concept.*—CANE III is the final phase in a continuous model-test-model field evaluation/model validation sequence. A series of three brigade level field evaluations will be conducted comparing baseline data against the results of operations in a nuclear and chemical environment. This phase will focus on the effect that combat support and combat service support degradation from the nuclear and chemical environment has on overall brigade combat performance.

Chairman GOLDWATER. Do you gentlemen have anything else?

We want to thank you. You have done a fine job. Again, I am sorry that the American people can't get a better look at this. This is where we say it is getting hairy. Thanks a lot for being here.

We have one more panel. The final panel will consist of Dr. Tom Welch, Deputy Assistant to the Secretary of Defense for Atomic Energy and Chemical Matters, and Mr. David Emery, Deputy Director of the Arms Control and Disarmament Agency.

Dr. Welch will provide an overview of the administration's request for the Chemical Deterrent Program, and Mr. Emery will discuss the relationship of this program to our efforts to negotiate a verifiable chemical weapons plan.

If you want to submit your statements for the record, they will be printed in the record entirely. If you care to brief them, you can, then we will go into questions.

STATEMENT OF DR. THOMAS J. WELCH, DEPUTY ASSISTANT TO THE SECRETARY OF DEFENSE (ATOMIC ENERGY—CHEMICAL MATTERS)

Dr. WELCH. Good morning, Mr. Chairman.

I have a prepared statement which I will submit for the record.

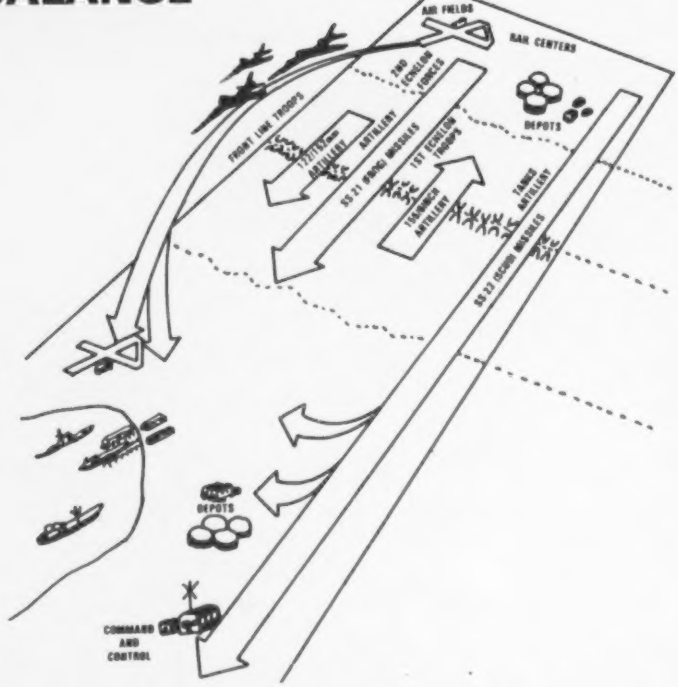
I would like to begin with Maj. Gen. Bill Klein, a soldier, to make sure that the committee understands this is not just a European problem, but rather all the CINC's are concerned about it.

STATEMENT OF MAJ. GEN. BILL KLEIN

General KLEIN. I would like to make a brief comment and thank the committee for their support and tell you that General Vessey in particular appreciates your support. He has already made his comments to this committee, as he did before the House yesterday, telling you how vital the modernization program is.

One of the questions that has come up, I believe Senator Wilson raised it first and all of you have spoken to it, is just what capability we have.

THE IMBALANCE



I have an unclassified slide of the battlefield which I would like to put up which gives you a really good idea.

As you can see, these are all the red systems which you see pointed here. You can see that our ports are at risk, our logistics centers are at risk, our command posts are at risk, seaports, air bases, and you see all the red diagrams.

These are their missiles. They have a capability with their missiles and with their aircraft, in addition long-range artillery.

It is difficult for you to see from that distance, but this is our capability. We have only artillery in our stockpile, both 8-inch and 155-millimeter artillery shells that have a chemical capability.

This is the distance on the battlefield that we have the capability and you can see the schematic as opposed to what the Soviets have.

As General Donnelly pointed out to you, we do have spray tanks of persistent gas that we could put on enemy fields, but we really do not consider that to be a real capability because the aircraft would have to fly low, slow, and it is like a crop duster and would not survive. He would never make it to his target.

This schematic shows you just how little capability we actually have on the chemical battlefield in our stockpile.

Chairman GOLDWATER. Thank you, General.

Dr. WELCH. Mr. Chairman, when I took this position 5 months ago, I was told that among my responsibilities would be the articulation of the soldiers' problems with Congress. Although I intended to do that this morning, I don't think I can top what we have already heard and seen. I think we all appreciate the problem of the soldier and the airmen.

I also believe I hear, and hope you did, too, that the single most effective thing we can do to help them is to modernize our stockpile. It is my judgment and the judgment of those around me that we would never ask the soldier to use a 1955 tank to fight a 1985 war.

That is just what it amounts to when we ask the soldier or the airman to reach into that depot system we have and use some of those antiquated retaliatory systems.

I would like to use a few viewgraphs to elaborate upon points that are important to Secretary Weinberger and especially to touch on a few of the new aspects of the chemical problem.

For example, you mentioned earlier new unknown agents and I can certainly tell you that the costume you have seen here as well as the detectors and decontaminants, the other parts of our defensive system, were designed to counter the known Soviet agents.

They were never designed, cannot be designed, to counter unknown agents. In Afghanistan we see two things coming out that are certainties.

One is Soviet use of chemical agents against the Afghan people.

The second certainty is that they have shown us new agents. We are seeing symptoms and other indicators that tell us new agents have been used in battle.

Now, this is important because for the first time we have to question our defensive system. We have always taken for granted that the mask and overgarment, the gloves, and so forth, would suffice.

This is very destabilizing and underlies Secretary Weinberger's point that external forces very often drive our defense budget. It is not what we want to do, but what the other side forces us to do.

May we see the first viewgraph again please?

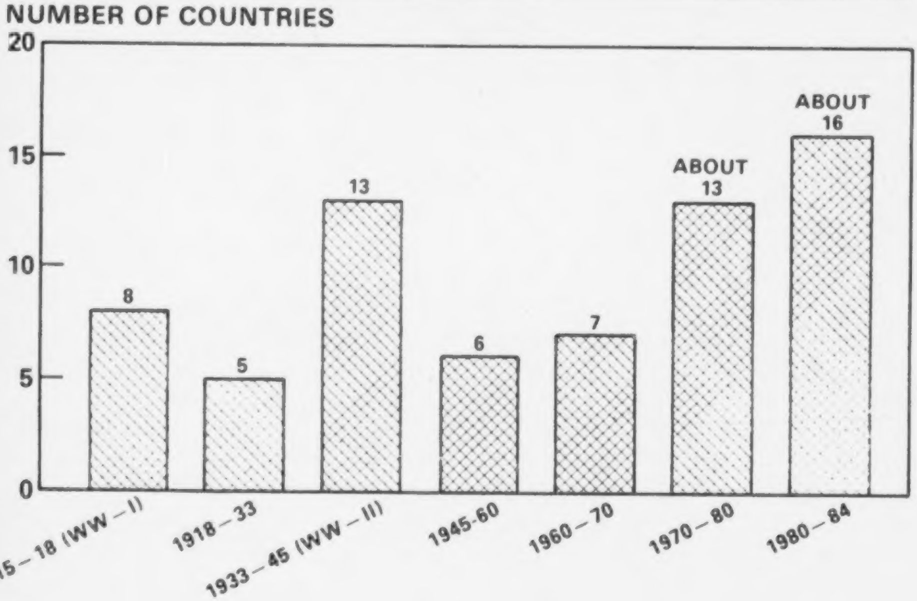
It has been made two times before, but we are forced by these Soviet systems to go into protective posture throughout the length and breadth of the battlefield. He need not go into that protective posture and its 50 percent debilitation because all we have is a few days of short-range artillery.

There is the area where he has defensive systems that are the best in the world. He can button up his tanks and personnel carriers, and so on.

Here is something that is new and troublesome. We have focused and put a lot of our resources into a scenario of Western Europe, chemicals against NATO, the Kroesen report you heard this morning.

NUMBER OF COUNTRIES HAVING AN OFFENSIVE CW PROGRAM

1915-1984



The point is today there are more nations with chemical agents, chemical weapons than at any other time in history and that includes World War I.

It is also interesting to note when we stopped in the late sixties or early seventies, stopped producing chemicals, stopped testing and training, a lot of nations, mostly Third World, picked up this weapons system. It has been called The Poor Man's Atomic Bomb and indeed it does fit into this idea of a cheap mass destruction weapon.

Some of these nations sponsor terrorists. Some of these nations are located in areas where we have key allies, key interests.

And, by the way, this is one of the products that the intelligence community is giving us, I do think your point earlier about intelligence is a good one, but we are seeing for the first time some good usable intelligence products such as this.

It also drives the soldier or airman or sailor to come to OSD and ask for something he can forward deploy. If there really is a risk in the Far East or Middle East, he wants something he can take with him in order to deter. He can't take that lethal munition we have in the stockpile today. He can't put that on a ship.

When we asked General Otis and the other commanders, General Rogers, what do you need by way of munition systems, it is, as General Otis said, driven by their fight plans. They have a plan to fight the next war if they have to, if deterrence fails, whether it is follow-on forces attack, whether it is air/land battle, whatever the doctrine.

U.S. Operational Requirements for Chemical Weapons

Place enemy at risk: Short, midrange, deep and persistent and non-persistent agents.

Degrade and slow the enemy: Delay, disrupt, disorganize.

Safety: Depot; movement in United States; forward deploy—ships, land battle areas.

What they are asking for are munition systems that place the enemy at risk throughout his part of the battlefield—persistent agent deep on his airfield so he has to operate at the same 50-percent level of degradation that we have to—and in persistent agent at the mid range and a nonpersistent agent right around the battle area because there is a lot of movement.

After we attack the hilltop with agent, we want to occupy it, we want the stuff gone by the time we get there. It will achieve these battle objectives, it will help us within the battle.

Danger in Storage and Transport of Unitary Chemical Weapons

Ship at Bari, Italy loaded with mustard munitions bombed by Germans (1943).

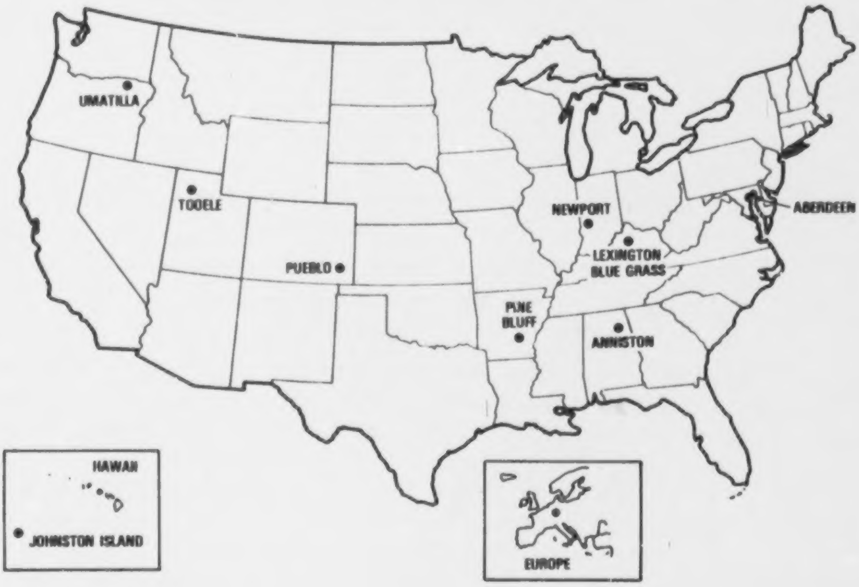
700 military mustard victims.

Unknown number of over 1,000 civilians killed due to mustard.

Allied command initially believed Germans had initiated chemical warfare.

He is also concerned about safety. He knows our depots contain lethal chemical agents. He knows it is difficult to move lethal agents by air, rail or truck across the many States from our depots to ports, and so on. He wants something he can forward deploy.

LETHAL CHEMICAL AGENT STORAGE SITES



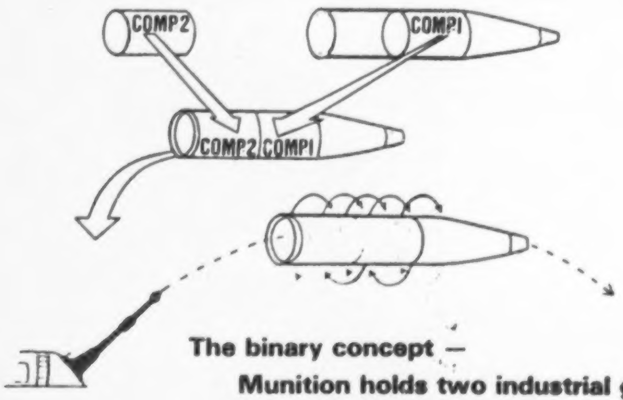
A reminder of where we store lethal chemical agents. Eight States as well as Johnston Island in the Pacific and our depots in Western Europe. In time of crisis we would have to move these old munition systems to the battle area and there is no question that if an enemy did use chemical agents against us and if the President asked us to retaliate, the soldier and airman would use those old systems.

If he does, however, he is going to suffer terribly and unnecessarily because we have the power today to change that and give him the assistance that he can use so that he doesn't have to suffer.

Now, this idea of a safe chemical weapon system has been answered for a number of years technically. It is here today and is ready for production today. It is called separated component or sometimes binary weapon system.

To make sure we all understand, this is an artillery projectile which contains as component one, alcohol. Component two is another nontoxic chemical.

SEPARATED COMPONENT MUNITIONS



The binary concept —

Munition holds two industrial grade, non-lethal chemicals

Lethal agent forms by mixing after the munition is fired

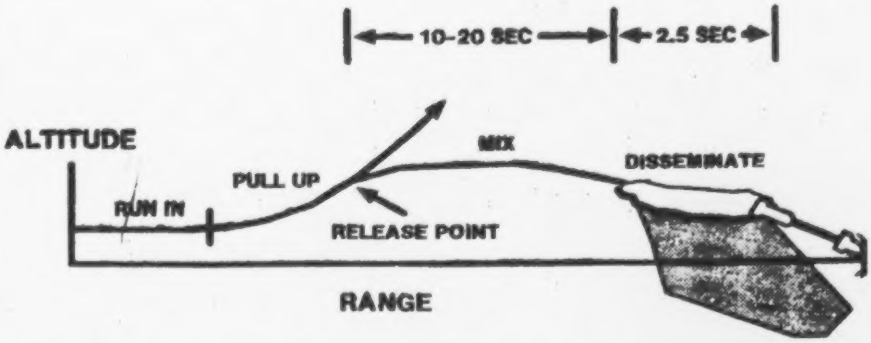
The idea is that these two components are kept separated, separate at depots, separate when transported, separate when they are brought to the battle area. It is only in the battle area that the two are brought together.

It is after the artillery round is fired that the two components are allowed to mix. It is then they form the lethal nerve agent, only when it is over the head of the enemy. This gives us a great deal of deployability, a lot of options. We can forward deploy alcohol. We can forward deploy that part of the artillery shell. In a different magazine on that ship we can deploy component 2.

The Navy and the Air Force are particularly interested in the Bigeye bomb. This is another two-component system. The two components are brought together at an airfield or they are brought up on the deck of an aircraft carrier, put together, the plane takes off and it is not until this is launched that those two components are permitted to mix. A great deal of flexibility.

If we have a worldwide chemical threat, we really want to deter it, our aircraft carriers or ships can deploy binary systems forward.

BIGEYE LOFT DELIVERY



Here is a sketch of how that Bigeye bomb would be delivered. The run is at a relatively low altitude. The aircraft is pulled up and the bomb is lofted much the same way we loft other weapons toward their targets. This increases survivability.

The bomb is mixed in a few seconds. This is 2 to 4 miles away from the target. Survivability is enhanced. The bomb travels over the target. A radar fuze tells it to disperse the agent and it does so while it is still in the air and covers the target with persistent nerve gas.

If it is an airfield, if it is a cool or moderate temperature, it will put the airfield out of commission or at least 50 percent of what it can do for a period of 3 days or 3 weeks, depending on temperature.

Bigeye has been a success story; 2 years ago when DOD found problems with Bigeye, when GAO reported them to you, there were a number of problems.

BIGEYE TESTING

Developmental tests: 74 successes in 75 trials and safety evaluation successful. Bigeye is a success story.

Since that time we have done a great deal of engineering. We have fixed each one, we have addressed each one. Here at a glance are the test results that show our fixes have been good ones.

The one problem with that safe separation trial occurred during the first run. One of the four fins on that bomb didn't fully open; we counted that as failure. That has been fixed. We had 27 successful runs after that. It will begin operational testing in April.

I would like to underline the safety issue. We receive a great deal of inquiries after the Bhopal, India, incident occurred that killed a few thousand people in India. Indeed, it was a tragedy, especially for those of us who understand how chemicals work, how they work against unprotected people.

I need to tell you that that gas leak, that gas was nowhere near the lethality of the nerve gas that we have in our depots. So, we are concerned about safety. The soldiers are concerned about it. Governors of your States and other States are concerned about it.

BINARY MEANS SAFETY

Never again need a U.S. depot contain lethal chemical agents.

Lethal agent will only be produced after:

1. Enemy use; 2. President directs retaliation; 3. separate components moved to battle; and 4. separate components fired toward enemy and mix.

I would like to underline here that never again need lethal agent appear at our depots. We have the opportunity today to destroy all of that lethal munition, all of those agents, and replace it with something that is safe. Never again need we have one drop in our depots of lethal agent.

We would only make lethal agent after an enemy has used it against us and the President has directed retaliation, after it has been moved forward and it has been dropped from an airplane or launched from an artillery tube over the heads of the enemy.

CONCLUSION

Soviets have an overwhelming advantage; proliferation has occurred; no U.S. militarily effective retaliatory capability; U.S. servicemen and women are at risk; and modernization with a smaller, safer, more effective stockpile redresses the imbalance.

My conclusions on DOD observations as well as those you heard from the speakers this morning. I don't know a single senior military commander or senior civilian member of DOD who disagrees with these conclusions. I don't know a single National Guard AG who disagrees with this. If you haven't chatted with your State AG, I recommend you get his opinion.

If there is one single thing we can do in this budget to redress this imbalance, it has to be modernization. We can spend more money on defense. As you see, we still have a ways to go. We need to deter right now.

[The prepared statement of Dr. Welch follows:]

PREPARED TESTIMONY OF DR. THOMAS J. WELCH, DEPUTY ASSISTANT TO THE SECRETARY OF DEFENSE (ATOMIC ENERGY—CHEMICAL MATTERS)

INTRODUCTION

We are here today to discuss how the Congress can help prevent the use of chemical weapons against the Armed Forces of the United States and its allies.

Therefore, we ask your help in arms control. We want a verifiable treaty prohibiting even the possession of chemical weapons.

We need your help in strengthening the NATO Alliance and our ties with friendly countries in the Middle East and the Far East.

We need your help in raising the nuclear threshold.

Finally, we need your help in eliminating the safety concern associated with some of the lethal chemical munitions now stored in the United States.

THE PROBLEM

The starting point for all that follows is this: It is abhorrent, reprehensible and unacceptable that chemical weapons ever be used against the men and women of the Armed Forces of the United States or its Allies.

But among the realities to be faced by our servicemen and women are these:

1. More nations possess chemical weapons today than at any previous time. The majority of these nations acquired their chemical weapons after the United States began its moratorium on production and testing in the late 1960's. Most of these countries lie in regions of strategic interest to the United States. Some of these nations sponsor terrorists. We have friends and allies in these regions. Among all nations, the Soviet Union continues to be the most capable of conducting chemical warfare.
2. There are some uncertainties about chemical weapon use in Afghanistan, but there are two certainties that require our attention. First, the Soviet Union has used chemical weapons against Afghan people. Second, new and unknown agents were used by the Soviets. Since our chemical defense equipment is designed to protect against the old or known agents, we are not certain today if we can protect our people with today's detectors, masks, etc.
3. Chemical weapons were used against three nations in the 58 years following World War I. But in the last 10 years, chemical weapons have been used against five nations. In all eight instances, not one of the nations attacked possessed a chemical weapon retaliatory capability.
4. The United States does not have a chemical weapon capability to deter chemical weapon use against its forces or its allies.
5. Defense alone against chemical weapons is not sufficient. Indeed, to suggest so is to insult the men and women of our Armed Forces who know first-hand and better than any of us the debilitation that comes with the protective masks, gloves, and so on. And there is the problem of new threat agents just mentioned.

These realities mean that nearly all of the recent improvements in our total military readiness could be jeopardized by a simple factor—the lack of a credible chemical weapon deterrent.

In the nearly 7 decades since World War I, there have been conflicts between nations possessing chemical weapons. But these weapons were not used. They were not used because the combatants were deterred by the other's chemical retaliatory capability. The best example of this was World War II. In that war, the Congress assured that our forces were equipped with the best chemical retaliatory materiel possible. We exhibited no weakness that might invite chemical attack. Indeed, massive amounts of chemical weapons were available to many combatants. But these weapons were not used. Deterrence worked.

We should note here how chemical deterrence in World War II was expressed and underlined by President Roosevelt. He announced that the United States would not be the first to use chemical weapons in combat. But he quickly added that the United States would retaliate with chemical weapons if so attacked. This "no first-use" policy, which the Congress endorsed with the ratification of the Geneva Protocol, continues through today. We will not use chemical weapons unless an enemy uses chemical weapons against us.

Today, with your support, our forces are beginning to get good chemical defense materiel.

But today, we have only a token retaliatory capability. If an enemy uses chemical weapons against us, and if the President directs U.S. to do so, we will retaliate. But, when we ask the soldier to use today's retaliatory weapons, he suffers unnecessarily. The soldier is hurt because he can only use these weapons with great difficulty and ineffectiveness, after needless delay, and after he suffers substantially and again, unnecessarily.

The soldier is needlessly endangered because our retaliatory agents and weapons were designed for past wars. Much of what we have is a hold over from World War II. The last weapon produced was in 1969 and was based on operational needs that are now 25 years old. We have artillery munitions that no longer match our modernized cannons. We have rockets for which there are no rocket launchers.

We do have some artillery rounds which can be used. But these were designed for earlier wars; the artillery shells cannot be fired to the ranges needed; not all the shells contain the chemical agent needed for today's contingencies. We cannot forward deploy any of these existing lethal weapons on our ships because of the danger they pose to the ship's crew.

We cannot deceive ourselves by saying that our forces must adapt their contingency plans to accommodate the existing weapons. We would never ask our forces to use 40 year old tanks to fight today's battles. It can't be a stockpile driven contingency plan; its got to be the other way around.

Nor can we be deceived by those who assert that defense is enough. Many of you in the past months have had the opportunity to experience the protective ensemble and can testify to the immediate and ever increasing debilitation associated with it. Despite the best efforts of industry here, in allied nations, and in the Warsaw Pact, this degradation reality will not be overcome for at least another two decades; it may never be overcome.

Decreased individual combat effectiveness means decreased until combat effectiveness. When this occurs, two things happen; both are bad. One is that our forces can suffer swift and ignominious defeat by the chemical and conventional arms of the enemy. This means that all of the national resources we have put into modernization go for naught because the world's best equipment cannot be used or cannot be used effectively. The other possible outcome is that facing imminent defeat our forces may request permission to employ nuclear weapons. Neither result is acceptable. It is our responsibility today to see that no President will ever have to face such a choice.

Given these realities, how does the Congress help ensure that chemical weapons are never used against U.S. or allied forces? We see two solutions. Each solution has its own degree of suitability and feasibility. The approaches to these solutions are not mutually exclusive. Indeed, we believe them to be mutually reinforcing. And both solutions can and should be pursued at the same time.

THE TREATY SOLUTION

Certainly the most suitable solution to reaching our objective would be a complete, worldwide, and verifiable treaty banning chemical weapons. Unfortunately, the treaty solution also appears to be the least feasible. Let's see why this is so.

Our country has been seeking a chemical weapons ban for more than a decade. We continue with initiatives in this area.

In pursuit of our goal to secure a treaty, the United States unilaterally halted the production of chemical munitions in 1969. It was a bold and dramatic signal to the Soviets and the world of our sincere desire to eliminate chemical weapons.

In the 16 years that we have observed this unilateral moratorium on the production of chemical weapons, we have seen the Soviets carry on a program to develop and use such weapons. And we have seen proliferation to the extent that more nations than at any time in history now possess chemical weapons.

From 1977 to 1980, the United States engaged in 12 rounds of intensive bilateral negotiations with the Soviet Union. These negotiations stalemated because of Soviet intransigence on critical verification and compliance issues.

In 1980, the United States redirected its efforts to achieve a treaty to the multilateral conference on disarmament (CD) at Geneva. Again, the Soviets refused to seriously address the critical issues of verification and compliance. In order to accelerate the negotiating process, Vice President Bush, in February 1983, addressed the CD, reaffirming the U.S. commitment to a complete and verifiable ban on chemical weapons. This speech was followed by a major U.S. initiative, the tabling of detailed views on the content of a ban. In November 1983, to continue the momentum, the U.S. sponsored a chemical weapons verification workshop at its chemical agent munitions disposal system facility in Utah. Although over thirty nations were represented, the Soviets did not accept the invitation to attend. The latest U.S. initiative was the tabling of President Reagan's draft treaty by Vice President Bush at the CD in Geneva in 1984. If adopted, it would be one of the most comprehensive and verifiable arms control treaties to date.

But in spite of this decade plus of talks, these initiatives, and a dedicated and professional negotiation team in Geneva, the treaty we need is not in sight. Why is this so?

I believe the answer to be this: The Soviet negotiation team comes to the table with the objective of enhancing the national security of the Soviet Union. They can achieve their objective a number of ways. For example, they can sign a treaty, such as proposed by President Reagan, which would ban even the possession of chemical weapons. Or, they can manipulate events so that the United States unilaterally disarms itself. For me, the latter has happened. And the Soviet Union has obtained its objective. This has happened, it seems to me, primarily because of two things acting together: The distaste with which the U.S. people and the congress feel toward these weapons; and, the hope that somehow a treaty could be reached, especially if we could just keep talking with the Soviets and especially if we didn't "antagonize" or "upset" the Soviets by modernizing our retaliatory stockpile.

The Soviets have a large chemical stockpile and a number of production facilities. We have a small stockpile of very limited usefulness. A treaty banning stockpiling and production of chemical weapons would require the Soviets to give up much; the U.S. little. Given this imbalance, it is not surprising that the Soviets have evidenced little interest in concluding a chemical treaty. A decision by the United States to produce modern, separated component chemical weapons could be the catalyst to move the Soviets toward such a treaty.

The Soviets themselves provide the best proof that there may be a link between achieving a treaty and U.S. production of chemical weapons. For example, the U.S. has consistently stated that a treaty hinges on meaningful verification procedures.

But the Soviets ignored the verification issue until one month after the United States Senate voted to resume production of chemical weapons in May 1982. In June 1982, the Soviets made public statements that for the first time acknowledged the importance of the issue of on-site inspection for verification of any chemical treaty. However, after the House of Representatives voted that same year to kill the production program, the Soviets seemed to lose interest in the verification issue and ignored repeated U.S. efforts to follow up on this apparent breakthrough.

But movement resumed in 1983—one month after the United States Senate approved a defense authorization bill that provided for production of chemical weapons. The Soviets finally provided clarification of the verification issue, acknowledging, for the first time, the principle of international on-site inspection for verification. Again in 1984 when the administration asked for modernization, Soviet participation in the CD deliberations became more active. When Congress set modernization aside, the Soviet interest in the talks again diminished. Louis Fields, Jr., the previous U.S. Ambassador to the CD, observed in October 1983:

"During recent visits to Geneva by senior-level U.S. officials, many Ambassadors openly offered the opinion that a decision to move forward with modernization would prove beneficial to the negotiations and would likely even be necessary if progress were to be made."

A decision to move forward with modernization would not reflect any waning in the U.S. desire for a chemical treaty. But it would clearly signal to the Soviets—and this is what is important—our intent to have either an effectively verifiable treaty or the ability to protect ourselves and our allies from any chemical attack.

In the 1970's, many of us shared the view of the late Congressman Clement Zablocki, when, as chairman of the House Foreign Affairs Committee, he was considering the services' request to modernize the U.S. retaliatory capability. Chairman Zablocki said, "Let's give negotiations another year . . ." Mr. Chairman, that was first said eight years ago. Now while I agree with those who say the Soviets have essentially achieved their negotiation objective by way of inducing unilateral U.S. chemical weapons disarmament, I do not agree that we should now, therefore, leave the negotiating tables. We want a treaty. We want to support NATO and other alliances with a treaty. But to get the progress we and our allies need, we must have bargaining leverage. We need to have a credible, retaliatory capability if we expect our negotiating team to make progress. They have the right to expect that from the Congress, and I support their need.

THE DETERRENCE SOLUTION

The second solution capable of preventing chemical weapon use against United States forces and our allies is deterrence. This means we provide our forces with the means to deter an enemy from even thinking seriously about using chemical weapons.

Note also that this second solution supports the first solution, the treaty solution. Indeed, we have seen that a retaliatory capability is absolutely essential for arms control progress.

We must prepare the deterrence solution.

Our chemical weapons deterrent comes in two parts: a defensive capability and a no-first use, retaliatory capability.

Defense is needed simply because an unprotected force is an extremely inviting target for a chemical weapons-equipped enemy, whether Soviet, Third World, or other.

The fiscal year 1986 budget proposed for chemical defense totals $936 million, 74 percent of our total program, and will continue the effort begun a few years ago to purchase the protective masks, overgarments, detectors and other material needed to give our forces the means to survive.

We have mentioned earlier our concern that the Soviet Union has introduced new, unknown agents and had used them against Afghan people. Since all of our chemical defense equipment is designed to protect against the old or known agents, we are not certain today if we can protect our people with currently fielded detectors, masks, etc. This is an example that clearly supports Secretary Weinberger's point that so much of what we must do is determined by the threat and other external forces. Therefore, part of the research and development funding we are requesting is intended to counter new threat agents. We will invest in protective masks and filters which can stop not only the known Soviet agents but also new, suspected chemical agents. Already, the Army and industry have developed a laboratory model of the world's first toxin detector for field use by the soldier. And we see good opportunities of building detectors that are universal or generic in nature and which will detect any chemical harmful to man, whether a known or unknown agent.

The Army remains the lead service in chemical defense research and development, for which $180 million is requested. The Army provides the research and development of detection, protection, and decontamination materiel to take advantage of advanced technology. Besides developing equipment which is smaller and easier to operate, we are looking for other ways to reduce the burden to the individual and unit which uses it. Examples of the improvements we want are detectors which are more sensitive and provide earlier warning, detectors which respond to all agents we identify as potential threats, and multipurpose detectors which will replace two or more of the systems in or soon to be in the field.

To help us develop better information for requirements of equipment being developed, the FY 1986 budget funds an operational troop test to collect and analyze data on individual and unit performance under a variety of chemical (and nuclear) conditions. This will be used to improve our combat models, and also our data base for materiel developments.

The Army program has $162 million for research and development of the medical defense against chemical and biological agents. These efforts will provide antidotes, patient decontamination and treatment and support systems, pretreatments, and vaccines.

In FY 1986 the Army will continue procurement of a lightweight decontamination system and the chemical agent monitor, plus begin procurement of the new protective mask, and a simplified collective protection system. The latter uses an inflatable liner, an entryway, and a filtered blower to turn an existing room into a chemical shelter. FY 1986 also continues the procurement of protective clothing and equipment for training, war reserves, and host nation support civilians. Total funding, including operations and maintenance (O&M) funds, for these purchases is $213.5 million.

The Army has budgeted $40 million to improve the capabilities at Dugway Proving Ground. Dugway's capabilities deteriorated during the 1970s when there was little emphasis on chemical warfare and chemical defense. Most of the facilities were built in the early 1940s and most of the equipment is far behind the state of the art. Without a modern technical capability Dugway Proving Ground will not be able to properly test newly developed equipment to ensure it works properly before use in combat. Dugway is our only such DOD major range and test facility.

The final Army major defensive item is $13 million to construct classrooms, library, and instructor facilities at the chemical school at Fort McClellan, Alabama. This is urgently needed to reduce the facilities overload and provide better training for chemical specialists of all services.

The Navy and Marine Corps Chemical Protective Program includes $21 million for research and development for systems unique to naval and amphibious operations. Efforts include development of improved ship detection and collective protection systems, flight and hanger deck protective clothing and equipment, and testing of a British mask for potential helicopter pilot use. The Marine Corps will operationally test several already developed items in preparation for procurement in later years.

Defensive materiel procurement for the Navy and Marine Corps totals $87.5 million, including the O&M funding of individual equipment. These funds will continue the acquisition of individual protective equipment for Marine Corps and ship board Navy personnel. We will begin acquisition of helicopter crew protective equipment and protective equipment procurement for overseas base personnel. Construction of collective protection aboard new ships is not included in this program budget, but is estimated as about a two percent increase in new ship acquisition cost. The Marine Corps will also be obtaining a small decontamination apparatus for its force.

The Air Force Chemical Defense Program includes $20.5 million for Air Force unique research and development. Primary efforts are to improve flight protection for air crews and to improve collective protective systems for forward air bases.

The Air Force Procurement Program of $126 million, including O&M funds, will continue to obtain respirator protection for groundcrews, survivable collective protection systems for forward air bases, and automated chemical agent detectors. An additional $6.6 million in military construction funding is requested for adding collective protection to already conventionally hardened pilot operations and avionics facilities.

The FY 1986 Air Force Program continues the effort begun in FY 1985 to achieve a sustained operating capability at our air bases by providing a complete collective protection capability. This program is estimated to require about $1 billion over the next five years and is essential to changing from a capability of surviving for a few hours to a sustained capability of operating for days.

We have improved our current retaliatory stockpile to the extent possible through component upgrade, and we are continuing to maximize the utility of the stockpile through maintenance. This, however, only gives us a token retaliatory capability, which is insufficient for deterrence needs.

As requested by the commanders in the field, we are seeking this year to begin production of munitions to redress the initial retaliatory deficiencies of a lack of a deep strike capability and a lack of a modern artillery projectile. The separated component concept is not a new agent concept; it simply provides a munition that is safe to produce, store, transport and use, and when obsolete or a treaty requires it, to destroy. The munitions proposed will consist of two non-lethal chemicals which will not be placed into proximity to one another until needed. And then they are not mixed together to form a lethal chemical agent until fired from a weapon or released from a plane.

Note that we are not asking for production of highly toxic, lethal munitions to replace the aging and lethal munitions in today's depots; but that we are asking for production of non-lethal, safe to handle, components as replacements. The two components will be stored separately. They will be moved separately and, since they are not lethal, they can be moved safely. Remember that today, we cannot forward deploy existing lethal munitions on aircraft carriers or munition ships. If a leak or accident were to occur, or if the ship is attacked with conventional munitions and the lethal munitions are opened, the sailor suffers terribly and the ship probably would be put out of action. With the separated component munition, each component can be stored on different ships, or stored in different magazines of the same ship, such as on a carrier. In these circumstances there would be none of the safety concerns that come with today's unitary munitions. In a time of crisis, we would have much more flexibility to deploy. In the case of the 155mm artillery projectile, we could forward deploy the heavy artillery shell with one component already inside. That component is alcohol. It's non-lethal and offers no unusual safety problem on ship or on land.

The retaliatory portion of our budget request totals $207 million, 16 percent of our total budget request. This funding would allow initial production of both the 155mm separated components artillery projectile and the Bigeye separated component bomb, as well as continuing research and development of retaliatory systems.

As I have noted earlier, we want to deter an enemy's use of chemical munitions altogether. If deterrence fails, we want a retaliatory capability to force the enemy to stop using chemical weapons. We are not seeking a war-winning chemical weapons capability. After an enemy's first use of chemical weapons, we want to be able to restore deterrence.

We need not, and will not, attempt to match the Soviets in agent and munition quantities and types. Rather, our stockpile requirements are prudent and restrained: To force the initiator of chemical warfare to suffer casualties and to operate encumbered by protective clothing. He too must be burdened by the logistics and redirection of combat power necessary to sustain operations in a chemical warfare environment. Because the size of the Soviet chemical stockpile has little bearing on the number of targets we would attack with chemical weapons, our munitions requirements are largely insensitive to changes in Soviet stockpile size.

Because a modernized stockpile would give us far more combat effectiveness, we are asking for a stockpile that is smaller by more than one-half that of the existing stockpile.

Therefore, the objective of the retaliatory component of our program is to have the safest, smallest stockpile that denies a significant military advantage to any initiator of chemical warfare.

Attainment of the modernized retaliatory capability requested means safety. It means that never again will a drop of lethal chemical agent be stored in our depots. Never again will we have to transport lethal chemical agents across your States and those of your colleagues. If we can get modernization through this Congress, and get this business behind us, then those thousands of tons of lethal agents now sitting in eight States can be destroyed and replaced by non-lethal, separated component munitions, and lethal chemical agents will then only be formed after:

1. An enemy first uses chemical agents.
2. The President directs retaliation.
3. Non-lethal, separated components are moved to the battle area.
4. Separated components are placed in the same munition.
5. The munitions are fired at or launched at the enemy and the separated components are allowed to mix.

Then, and only then, over the heads of the enemy, are lethal chemical agents formed.

In sum, we need your help to see that:

Never again will a U.S. depot contain lethal chemical munitions;

Never again will we have to move lethal chemical munitions across many of your States and through U.S. ports; and

Never again will U.S. combat forces have to handle lethal chemical munitions.

I do not believe that anyone wants to stand in the way of removing these lethal agents from our present stockpiles and of giving the soldier the deterrence he needs to prevent an enemy from initiating chemical warfare.

We are requesting $21.7 million for initial production of the 155mm separated component projectile using the facility at Pine Bluff Arsenal, Arkansas, which was funded in FY 1981. This munition will provide the needed artillery non-persistent agent capability by producing the nerve Agent GB after the projectile is fired. Initial production will result in the first projectile being completed in 1988.

Bigeye bomb developmental problems identified by DOD and reported to you in GAO reports have been corrected, and the Bigeye bomb has been tested to confirm the fixes made. All problems have been fixed. The Bigeye today is a success story, and so it is entirely appropriate to request FY 1986 Bigeye production funds.

We are requesting $109.1 million for facilities to produce the Bigeye bomb. This includes $10.8 million in military construction funds for the load, assemble, and pack [LAP] facility at Pine Bluff Arsenal, and $98.3 million in Army ammunition procurement funding for equipment at the LAP facility at Pine Bluff, for metal parts production line equipment at the initial contractor site and for the chemical facility needed to make one of the separated components. We are also requesting an additional $43.7 million ($21.6 million Navy and $22.1 million Air Force) for the initial production of Bigeye bombs. The procurement lead time for the bomb components equals the lead time for the bomb construction line, and the time required to build the number of bomb bodies needed to efficiently use the LAP facility equals about the time required to have the separated component and LAP facility ready. Thus the funds requested have been carefully balanced to be the minimum needed to obtain earliest possible production of the critically needed Bigeye bomb, with first complete bombs scheduled for 1989.

We are requesting $32.9 million for research and development supporting the retaliatory program. Most of these funds are for developing a binary chemical rocket for the multiple launch rocket system. There also is scheduled $1.8 million for the Air Force to initiate work for standoff delivery systems that could be fielded, if necessary, in the next century.

The FY 1986 budget proposed for destruction of chemical munitions totals $132 million, about 10 percent of our total program. All the funding for destruction is placed in the Army budget. The budget funds an obsolete M55 rocket destruction program to complete destruction studies to evaluate options. It also would continue operation of the chemical agent munition disposal system at Tooele Army Depot, Utah. In FY 1986 this facility will convert from its prototype operation and start destruction of the M55 rockets remaining at Tooele. The Army will continue construction and equipping of the obsolete BZ agent destruction facility at Pine Bluff Arsenal and the Johnston Atoll chemical agent disposal system. The BZ facility is scheduled to begin destruction operations in FY 1987, and the Johnston Island facility will begin in FY 1988.

Our Chemical Deterrence Program continues to benefit by the participation of U.S. industry and academia. Hundreds of companies have been represented at DOD-industry interface conferences. Hundreds of unsolicited proposals continue to come in on proposed solutions to our materiel needs. Industry perceives this program to be needed by the United States and one that will have stability over the next decade.

In sum, the FY 1986 budget request would provide a total of $1.3 billion to support continuation of the chemical warfare deterrence plan provided to congress in 1982. There has been no change in national policy and our FY 1986 program would continue to use most (74%) of our program funds to improve our protective posture, while seeking to initiate the modernization of our chemical retaliatory stockpile and continuing to destroy the old, obsolescent stockpile.

CONGRESSIONAL ACTION NEEDED

The soldier needs your help. His commanders are asking for your help. These commanders include your State National Guard and Reserve commanders.

I am not aware of a single senior commander, whether Active, Guard or Reserve that disagrees on the following: (1) We don't want to go onto the battlefield, whether in Western Europe, the Middle East, or the Far East, and appear so weak to an enemy as to invite chemical attack; (2) we want a verifiable treaty that eliminates the possibility of chemical attack; (3) until a treaty is in hand, we want to deter chemical weapon use against the men and women of our Armed Forces and our allies; (4) defense is not enough; we need a no first-use, separated component, retaliatory capability; and (5) today, we do not have the retaliatory capability needed.

We have an obligation to remain—and indeed we intend to remain—on the moral high ground with respect to chemical warfare. We must continue to do whatever is necessary to ensure that chemical weapons are never used against the men and women of our Armed Forces or our allies. If there is anything reprehensible, abhorrent and unacceptable about chemical warfare, it is that we not do all that we possibly can do to discourage the use of chemical weapons against our people in the field.

Deterrence has worked when we possessed a no-first use, retaliatory capability. We need now only to restore it.

Chairman **Goldwater**. Thank you very much, Dr. Welch.

[Questions for the record follow:]

Questions Submitted by Senator Barry Goldwater

AIRCRAFT SORTIES RATES

Senator **Goldwater**. If our aircraft sortie rates are reduced 50 percent by chemical attacks, is there any reason to believe that we could achieve the air superiority we require for the defense of NATO?

General **Donnelly**. No. We probably could not achieve the air superiority we require for the defense of NATO if our sortie rates are reduced by 50 percent by chemical attacks (unless similar reduction is imposed on the enemy). Recent Shape studies estimate NATO is several hundred dedicated interceptors short of the mark to appropriately counter attacks by the Warsaw Pact. Any reduction in the sortie rates we can now attain jeopardizes our ability to gain and maintain even localized air superiority. Surface defenses cannot substitute for fighters. Without air superiority, we cannot provide the support our ground forces require to prosecute their battles nor can we provide defense to our vital rear area assets.

SOVIET VIEW OF U.S. STOCKPILE

Senator **Goldwater**. Do we have any indication of how the Soviets view the effectiveness of our current stockpile of chemical weapons?

General **Otis** and General **Donnelly**. The Soviets are certainly aware of the many reports printed in the American press regarding our current stockpile of chemical weapons. These reports have repeatedly stressed the age and obsolescence of our stockpile, as well as the fact that many of these warheads were designed for weapons no longer in the US inventory. Among these articles, there have been statements such as "90 percent (of the Army's chemical arsenal) is obsolete;" "only some 10 percent (of U.S. chemical weapons) are now considered usable;" "only 10 percent of the munitions on hand today are deliverable, and these are limited to a few ground weapon systems having a range of less than 10 kilometers;" and "only about 10 percent of the current American stockpile of chemical weapons is in useful munitions; the remainder is either unserviceable or stored in bulk without filling facilities or earmarked for obsolescent munitions."

[Deleted] the Soviets do not view the current U.S. stockpile of chemical weapons as being particularly effective. Nonetheless, they continue to train their personnel to operate on a contaminated battlefield and write in their unclassified military journals about the steps that would have to be taken following contamination by an "enemy" chemical attack. This training is equally applicable to surviving on a battlefield contaminated by Warsaw Pact chemical attacks.

In addition to Soviet awareness of public discussions concerning our chemical capabilities, we know that they have a healthy respect for U.S. chemical technological capabilities and are particularly concerned about the possibility of U.S. binary weapons being fielded.

BIGEYE BINARY CHEMICAL BOMB

Senator **Goldwater**. Dr. Welch, could you provide us with an update of the status of the Bigeye program? Have the problems identified two years ago been resolved?

Dr. **Welch**. The Bigeye is a success story. It is now successfully completing technical evaluation, with the report due in April. The problems identified two years ago have been resolved. In 1982, during toxic chemical testing in a special enclosed chamber, it was discovered that the binary chemical reaction in Bigeye resulted in a continuing increase in pressure when initiated at elevated temperatures. Such elevated initial temperatures could be encountered as a result of a general change in tactics during the 1970's from ingress at high altitude and relatively slow speeds to ingress at low altitudes at high speeds. Instead of being "cold soaked" at high altitude, the bomb is heated by the friction of the air it passes through. The resulting pressure and possible leakage was significant to the safety of own forces if the weapon could not be released after mixing had been initiated. The problem was significant enough to cause a restructuring of the program to permit off-aircraft mixing. The mixing now takes place only after the weapon is released from the aircraft. This ensures that our personnel never need deal with a toxic filled bomb of our own.

QUESTIONS SUBMITTED BY SENATOR STROM THURMOND

NUCLEAR WEAPONS RELEASE AUTHORITY

Senator **Thurmond**. General Otis, how does the lack of a credible chemical retaliatory capability impact upon your decision to request authority for the release of nuclear weapons?

General **Otis**. I agree with General Rogers, Supreme Allied Commander, Europe, who has expressed the probable need for early authority to use nuclear weapons to stop a conventional Warsaw Pact attack. The impact of Warsaw Pact chemical weapons employment, combined with our lack of capability to respond in kind, will shorten the time span between the outbreak of hostilities and the need for employing nuclear weapons.

CHEMICAL PROTECTION IN COMBAT VEHICLES

Senator **Thurmond**. How valuable are the chemical protection capabilities of Soviet combat vehicles versus those of our combat vehicles?

General **Otis**. [Deleted] U.S. combat vehicles do not provide for collective protection.

CHEMICAL WARFARE

Senator **Thurmond**. Is there any way for our intelligence to determine what type ammunition the Soviets would be loading for deployment for combat operations?

General **Otis**. [Deleted.]

CHEMICAL PROTECTION AT HEADQUARTERS

Senator **Thurmond**. General Donnelly, how many of your headquarters have protection against chemical attack by way of filter systems and positive over pressure systems?

General **Donnelly**. Administrative Headquarters at main operating bases are not chemically protected; however, critical work centers such as wing command posts, squadron operations, avionics maintenance, communications centers, and photo interpretation centers require this protection. Presently, [deleted] of these facilities either have or are programmed to have filtration systems. These work centers are used to perform critical functions which cannot be accomplished wearing protective clothing. Approximately 15% of USAFE personnel work in these facilities. Filtration systems to protect and sustain the remaining 85% of personnel will be provided by survivable collective protection systems.

PROTECTION AT HEADQUARTERS

Senator **Thurmond**. General Otis, how about Army headquarters?

General **Otis**. Army or ground operations, unlike the Air Force, are not as restricted to fixed installations. The very nature of mobile land warfare makes it impractical to be tied to one or two locations, so it is difficult for us to establish the systems that you have referred to. The Army has started and is continuing to develop such equipment to meet our needs. For example, Modular Collective Protection Equipment (MCPE) consists of a family of end items that provides NBC protection by providing filtered air under positive pressure to a variety of vans, vehicles and shelters. Another item that calls for issue to each staff element at battalion level and higher for use in command, control and communication is the collective protection equipment, NBC XM20. This is a liner used to convert an interior room of an existing building into a positive pressure NBC collective protection shelter where individuals can perform assigned missions in an NBC environment without the encumbrance of the protective mask and other NBC equipment—an ideal system for the European Theater. Currently, no US Army headquarters has a central filter system nor a positive over-pressure system.

LESSONS LEARNED FROM BHOPAL TRAGEDY

Senator **Thurmond**. General Otis and General Donnally, the recent chemical tragedy in India, although an accident, is a startling reminder of what chemical weapons could possibly do to our servicemen, not to mention the exposed civilian population. What lessons have our military services learned from this tragedy?

General **Otis**. We have reaffirmed that toxic chemicals used against unwarned and unprotected personnel can cause devastating results. As long as the Soviets maintain the capability to conduct this type of warfare, we must continue our present national policy to ban chemical warfare. In the absence of a verifiable ban on development, production and stockpiling, we must continue to deter chemical warfare through a strong defensive capability and an equally strong retaliatory capability.

This incident has also graphically demonstrated what could happen in a major chemical accident involving unitary munitions. Binary ammunition, as stated many times, is safer to store, transport and employ.

General **Donnelly**. I would only add that the Bhopal incident points out that vulnerability of the civilian population in a chemical war. We must deter chemical warfare not only to avoid its military impact but also to insure that defenseless civilians are never exposed, even unintentionally, to the effects of these weapons.

Questions Submitted by Senator Dan Quayle

VULNERABILITY TO BALLISTIC CRUISE MISSILE BIOCHEM WEAPONS

Senator **Quayle**: Can we confirm if the Soviets currently arm any of their cruise or short-range ballistic missiles with biological or chemical munitions? If so, which missiles?

General **Otis** and General **Donnelly**. The Soviets have effective chemical agents for most tactical requirements. [Deleted.] it is known that the SCUD missile can deliver a chemical warhead containing approximately 1,100 pounds of a toxic agent to a range of about 180 miles. This same agent is probably incorporated into a warhead for newer missiles like the SS-21.

[Deleted.] We have no evidence that any Soviet cruise missiles are deployed with chemical warheads. However, following the crash of a Soviet naval cruise missile in Finland recently, a Soviet statement indicated the missile had no nuclear or toxic materials onboard. This was an unsolicited comment and may indicate that cruise missiles are capable of carrying toxic chemical warheads. We know that Soviet cruise missiles are deployed with conventional or nuclear warheads.

Senator **Quayle**. What active defenses do our main operating bases and ports in NATO have against this missile threat?

General **Otis**. NATO main operating bases and ports are prioritized for air defense artillery coverage. Air defense resources are not adequate to provide coverage to all bases and ports. The long range system (Hawk) presently fielded does not have the capability to interdict the cruise missile system nor short-range ballistic weapons.

General **Donnelly**. Main operating bases and ports are vulnerable to attack by both ballistic and cruise missiles, if any enemy would choose to use them. Presently, there is no active defense available against ballistic missiles. Cruise missiles would be subjected to the same array of air defenses that enemy aircraft would face (SHORAD, Hawk/Patriot SAMS, Fighters.) The size and flight profiles of cruise missiles, however, make them more difficult to find and kill than aircraft. Our active defenses could provide limited defense against cruise missiles.

PRODUCTION OF BINARY CHEMICALS IN INDIANA

Senator QUAYLE. Earlier last month, the Army announced that it intends to prepare environmental documentation for the possible construction and operation of a QL production facility in Newport, Indiana, where the Army previously produced VX nerve gas and now stockpiles VX. Several questions:

A. Is the documentation complete?

B. How toxic is QL? Is its toxcity comparable to any commonly known products in commercial use? If so, which ones?

C. If binary munitions were produced, is there any hope that the VX currently stockpiled at Newport could be disposed of? How and where might this be done?

D. How likely is the Army to choose Newport?

E. When is a decision on Newport expected?

F. How long would it take to complete construction of these facilities and how long would they be operated?

Dr. WELCH. I will respond to the questions in the same order they were asked:

A. The Army is currently working on a Supplemental Environmental Impact Statement (SEIS) which is considering Newport Army Ammunitions Plant as well as a commercial source as possible options for the production of QL. The draft SEIS should be completed by mid-May 1985, and published in the Federal Register; the final supplement will be completed and published in the Federal Register by mid-August 1985. This SEIS will be added to a Final Programmatic Environmental Impact Statement (FEIS) filed with the Environmental Protection Agency in 1981, which at that time only considered Pine Bluff Arsenal, Arkansas as a possible site for QL production. With the completion of the SEIS, a decision on which site will produce QL can be made.

B. Extensive studies of the health and environmental effects of the binary chemical component QL have been conducted over the last several years. While common sense dictates that QL, like most industrial chemicals, should not be ingested or allowed to remain on exposed skin, it has proven to be a rather innocuous material. Ingested orally, QL is about as dangerous as baking soda and less dangerous than the caffein in coffee. Although QL normally exists as a liquid, its vapor danger is approximately that of ethyl alcohol and less than that of leaded gasoline. It has not been found to cause cancer. Long term exposure studies are currently being completed, and as a consequence, a conservative approach to chronic exposure levels have been incorporated in QL plant design. We expect, however, that based on results to date, the actual "safe" permissible levels will be quite high.

C. Yes. Our binary munition production program and program to destroy the unitary chemical stockpile are linked. We intend to destroy the entire unitary stockpile and replace it with a safer, militarily more useful, and, at the same time, smaller binary munition stockpile. The Army is currently developing contingency plans for destroying the unitary chemical munitions. When binary production is approved, the environmental documentation process for evaluating alternatives for destroying the stockpile will be initiated. The final decision will be based on safety and environmental concerns as to how and where the munitions and agents will be destroyed. Until the binary program is approved, however, the unitary stockpile must be maintained to provide a retaliatory capability should deterrence fail.

D. The final decision on which site will be selected to product QL will require the completion of the ongoing environmental documentation (SEIS). When this is completed, it will be added to the completed economic analysis of the options under consideration and a site selected. The Army's preferred options, based solely on the economic analysis, is Newport Army Ammunition Plant.

E. If the current schedule for the SEIS can be maintained, a final decision should be made in September 1985.

F. From the time the final decision on the site is made, it will take approximately 36 months to complete a design and construct "turnkey" contract. The current program calls for the facility to be active for five years, to be followed by a five year period of mobilization standby.

QUESTIONS SUBMITTED BY SENATOR SAM NUNN

CHEMICAL WARFARE

Senator NUNN. General Otis, the administration (DOD) testified last year that forward storage of binary weapons in Europe was "not essential" and that even without forward storage, "we are buying an adequate amount of deterrence." Do you agree?

General OTIS. If we start this year with the program requested for fiscal year 1986 and continue it to completion, then the answer is yes, we will be buying an adequate amount of deterrence.

Senator NUNN. If we asked the NATO allies to accept forward storage of these weapons, do you think they would agree?

General OTIS. First, this question is more a political issue than a military one, and should be addressed at a higher level. Secondly, in some respects CONUS storage is preferable to forward storage since CONUS is more centrally located for rapid response to the other areas of the world where there is also a chemical warfare threat. Lastly, regarding Europe, my belief is that the NATO allies support modernization of our retaliatory chemical stockpile, and they look to the United States for protection and deterrence in this area. As you know, chemical weapons are a very emotional issue in Europe—the probable location of any battle between NATO and the Warsaw Pact. No European wants a chemical, nuclear, or even conventional war in his homeland. This is understandable. It is for this very reason that we must deter any type of aggression, and a credible chemical retaliatory capability is part of this deterrence.

SOVIET USE OF CHEMICAL WARFARE

Senator NUNN. Do you agree with the assessment in this year's Secretary of Defense posture report that "we no longer believe that the Soviets intend to use chemical weapons on a massive scale."

General OTIS. Yes, we agree with the assessment.

Senator NUNN. What led us to change our assessment?

General OTIS. The current assessment clarifies the expected scale of chemical employment. [Deleted.]

CHEMICAL PROTECTION IN FIGHTER ALERT FACILITIES

Senator NUNN. General Donnelly, I understand that in our fighter alert facilities in Europe, air filtration for protection against chemical attack used to be provided in only part of the facility, and not, for example, in the crew rest areas. This approach would obviously be inadequate if the crews had to remain on alert against chemical attack for a prolonged period, one that lasted for days or weeks.

a. Is this still the case?

b. Does the NATO Infrastructure account now permit funding air filtration protection for the entire facility?

c. If not, is the Air Force using its own funds to provide complete protection? If not, why not?

General DONNELLY. a. The main operating (work center) area of the fighter alert facilities is semi-hardened and chemically protected. This area includes the pilot briefing room, intelligence and life support section, operations center, chemical equipment storage area, and contamination control area (entry/exit area). Other functions such as the administration section and training room, are in soft, unfiltered areas.

b. The NATO Infrastructure does not fund for air filtration protection. Inclusion of air filtration in NATO Infrastructure would increase the U.S. contribution, which in the long term, would be more costly than unilateral funding of U.S. Air Force requirements.

c. The Air Force is using its own funding in meeting this national requirement.

MORALITY OF CHEMICAL RETALIATION

Senator NUNN. Dr. Welch, in testimony on this program before this committee last year, your predecessor, Dr. Gold, discussed the morality of our policy of deterring chemical attack through the threat of retaliation in kind. With reference to the theory of a "just war", Dr. Gold said, "the threat of proportional retaliation is both morally justifiable and effective in deterring the use of these weapons."

a. Do you agree that the threat of retaliation is in this case moral?

b. Do you agree that defensive measures alone would not be adequate to deter a Soviet first-use, that we need a mix of defensive and retaliatory capabilities?

c. Since you also carry responsibilities in the atomic area, I would like to ask, in light of these answers, why some administration officials persist in trying to promote the SDI by questioning the morality of our policy of maintaining strategic deterrence through the threat of nuclear retaliation? Why do high-level DOD officials disparagingly refer to nuclear retaliation as "avenging deaths" when chemical retaliation is described as "morally justifiable?"

Dr. WELCH. a. Yes, I agree with Dr. Gold's previous statement that the threat of proportional retaliation is both morally justifiable and effective in deterring the use of these weapons.

b. Defensive measures, although necessary, cannot alone adequately deter a Soviet first use of chemicals. In fact, a defense only posture may provide the Soviets a major incentive to use chemical weapons, i.e., they would be militarily foolish not to use them. Imagine two armies fighting a war with soldiers on one side free to wear normal uniforms and use normal equipment while the soldiers on the other side must wear vision- and air-restricting masks, heavy rubber gloves, thermally burdening suits, and oversize boots. More specifically, consider our million dollar fighter pilots flying twenty million dollar fighters when encased in chemical warfare equipment more suited for fire fighters than fighter pilots. Further, remember that one side must now operate its entire logistics support system in a contaminated environment. It is obvious the side operating normally enjoys a great advantage. This is the difficulty we and our allies face today. This is no way to fight and win.

c. There is a major difference between nuclear and chemical warfare. In particular, protection of lives can be achieved currently by chemical warfare defense, while the need for a retaliatory capability derives from the fact that protection measures degrade military efficiency. With regard to nuclear retaliation and the SDI, today's U.S. policy of deterrence is formulated in terms of a flexible posture combining conventional and nuclear capabilities. The objective is to terminate conflict and reestablish deterrence at the lowest level of violence. Research on SDI may show us how to improve our posture of flexibility by adding the new dimension of defense against incoming missiles.

SOVIET SELECTIVE USE OF CHEMICAL WEAPONS

Senator NUNN. Dr. Welch, this year's Secretary of Defense Posture Report states that DOD no longer believes the Soviets intend to use chemical weapons on a massive scale. Do you agree? If so, why has DOD changed its assessment?

Dr. WELCH. Previous [deleted] assessments stated that the Warsaw Pact would use chemical weapons on a "massive" scale. [deleted.] Since the 1960s, Soviet military capabilities have improved significantly. The Soviets have fielded a variety of battlefield nuclear weapons and have improved the accuracy, range and lethality of conventional weapons. As their capabilities improve, doctrine governing use of these capabilities undergo evolutionary modifications. Chemical warfare is no exception. [Deleted.] Pact use of chemical weapons against NATO would be on a more "selective" basis. Improvements in the quantity of battlefield nuclear weapons and the lethality of conventional weapons means that chemical weapons would not have to be used to compensate for shortcomings in other weapons systems. Chemical weapons would be used for their own unique effectiveness. "Selective" also describes the use of chemical weapons, vice the indiscriminate use implied by "massive" use. "Selective" also described the use of chemical weapons in combination with conventional or nuclear weapons, vice the use of only chemical weapons in a "chemical operation." Finally, "selective" is used to describe the combat multiplying effect of using chemical weapons surgically against specific targets anywhere throughout the depth of NATO's defense, vice using chemical weapons simply to achieve the greatest destruction possible across the entire battlefield. Therefore, Soviet chemical warfare doctrine today emphasizes the integration of chemical weapons as a supporting and complementary element of fire support during the conduct of conventional or nuclear operations. This provides the Soviets with a more efficient and effective battlefield strategy.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

ALLIED CAPABILITIES IN CHEMICAL WARFARE

Senator LEVIN. General Otis, as the present commander of our troops in Europe and of some allied troops in the central region, how do you assess our allies' capabilities to fight and survive on the chemical battlefield? Are they as trained and equipped in defensive capabilities, both active and reserve forces, as our active and reserve forces? Will we kill or degrade more of our allies or more of the enemy if we employ chemical munitions? If it is the former, why should we go forward with binaries until we have this part of our defensive capability in order?

General **Otis**. In time of war, I function as Commander, Central Army Group. Land forces under me consist of United States, German, Canadian and possibly French. I would rate the forces of these nations to be well prepared to fight and survive on a chemical battlefield but could not sustain operations indefinitely. Their active and reserve forces are roughly equivalent to the United States in NBC defense capability.

If the United States were to employ chemical weapons, friendly forces, both United States and allied, would be adequately warned in time to take defensive measures if required. However, our targeting procedures are such that accidental exposure of friendly units would be minimized just as they would for nuclear weapons.

NATO POLICY ON CHEMICAL WARFARE

Senator **Levin**. General Otis, Secretary Welch, does NATO policy hold that all nations should mount defensive chemical efforts but that only the United States should maintain and use a retaliatory offensive chemical capability? Are we planning to procure sufficient munitions and delivery capabilities to ensure that binary munitions will be available for retaliation all along the NATO front—Northern Flank, Central Europe and Southern Flank? Why shouldn't some of our allies help finance this program directly or indirectly, if that is the case?

General **Otis**. NATO policy holds that all nations will maintain a defensive chemical capability. It also states that NATO will retaliate with chemicals if attacked.

I believe the binary munitions that we are requesting are of sufficient number and type to provide a credible deterrent to Warsaw Pact first use of chemical weapons in Europe. If, however, deterrence should fail, NATO policy does allow for the appropriate chemical retaliatory response using chemical weapons from the U.S. deterrent chemical stockpile anywhere along the "NATO FRONT" to stop Warsaw Pact use of chemical warfare.

With regard to asking our allies to help finance the binary program, as we all well know, this is a very political issue, and I feel that it would be presumptuous at this time to ask for allied financial assistance with a program that our own Congress has not fully financed to date.

Dr. **Welch**. NATO policy is as expressed in this unclassified version which appeared in the last FRG defense white paper: "To deter the Warsaw Pact from using chemical weapons, NATO relies mainly upon its conventional and nuclear forces. However, as long as the threat posed by chemical weapons continues, the Federal Government, like those of our allies, considers it indispensable for NATO not only to improve its defense capabilities against such weapons, but also to maintain a capacity for reprisals, albeit limited in size, in order to deter any aggressor from using chemical weapons in violation of international law."

Our procurement plans at this time are only for munitions required by U.S. forces. We don't currently have plans to procure the larger amounts required for retaliation along the NATO front. We have no plans to produce weapons for our allies without their financial assistance.

SOVIET ASSESSMENT OF U.S. STOCKPILE

Senator **Levin**. Deterrence is in the eye of the beholder, so it may be *more* important what the Soviets think about our present chemical retaliatory capabilities than about what we think about them, if Congress is to evaluate DOD claims that the present stockpile needs to be replaced by binary munitions. What evidence do we have about Soviet assessments of our present stockpile and about whether the Soviets would intend to use chemicals, or be deterred from using them by our present stockpile, in a NATO war?

Answer. The Soviets are certainly aware of statements by authoritative U.S. sources that the current American chemical weapon stockpile is obsolete. General Vessey has been quoted in the press as saying that only about 10 percent of the American arsenal of aging chemical munitions is usable. The British press reported that the United States "stores just 5 percent of its total [chemical weapons] in Europe . . . in an emergency, the remainder would have to be flown across the Atlantic, probably arriving too late to influence the crucial first few days of the war." The difficulty of retaliating, even for Soviet use of chemical weapons against U.S.

forces, has also been reported in open publications. General Rogers was quoted as saying that he was "not satisfied with the procedures assigned" for the release of chemical weapons. Another reporter wrote that during an exercise in September 1984, a U.S. unit "failed to get Washington's required approval to retaliate in kind [for simulated Pact use of CW] because of the complicated consultation procedure."

[Deleted] the Soviets do not view the current U.S. stockpile of chemical weapons as being particularly effective. They do credit NATO with the ability to escalate to nuclear weapons, and are aware of authoritative U.S. statements that such escalation might be necessary due to NATO's very limited ability to retaliate with chemical weapons. Once again, though, we do not know how credible this threat of escalation is in Soviet eyes, especially in light of Soviet parity on the tactical nuclear battlefield. What is known is that, since 1919, no nation has used chemical weapons against a country that had the capability to retaliate effectively in kind.

LOGISTICS OF BINARY WEAPONS

Senator **Levin**. It has been alleged that binary munitions create greater, not fewer, logistical problems for our forces, especially if they need to be sent to Europe in a crisis, the early days of a mobilization, or war. It has been alleged that these munitions are heavier and bulkier than present munitions, for example. Do you agree with these assessments?

General **Otis**. No, I don't agree with those allegations. The new binary weapons would be slightly lighter in weight than existing unitary munitions. Binary projectiles are the same in diameter as unitary projectiles, but one of the two binary components will be shipped separately, thus increasing the total volume in contrast to unitary munitions which are shipped as one complete entity. Overall, the munitions are much easier to deploy since they are safer to handle, transport, store, maintain and destroy. These improvements are far more important than a slight increase in volume.

General **Donnelly**. I agree with General Otis. The present chemical munitions are much bulkier and, as I've said before, a logistical nightmare. The Bigeye is only two-thirds the weight of the MC-1 and many times more effective. In place of the 6,000 lb shipping weight of the TMU-28 we could deploy 12 Bigeye bombs. Not only are those bombs at least twice as effective as a TMU-28, but we're much less likely to lose the delivery aircraft and we can carry those bombs much deeper into enemy territory. Additionally, the TMU-28 container is [deleted.] To give you an idea of the procedural and mechanical difficulties of dealing with unitaries, just to open the TMU-28 shipping container requires the tedious removal of the 60⅝ inch bolt—all of which must be carefully replaced if there is anything wrong with the spray tank inside.

AIRLIFT OF CHEMICAL MUNITIONS

Senator **Levin**. It was alleged that the cumbersome airlift of binary chemical munitions from the United States to Europe could not occur until too late in a NATO conflict to be useful. What is your response to do this, and do "movement plans" already exist for present chemical munitions to be sent to Europe early in a crisis, mobilization, or war? How would these plans have to change for binary munitions?

General **Otis**. As stated previously, movement plans for binary weapons would be simpler than movement plans for unitary weapons since they are safer. There are plans that program time-phased deployment of equipment (including munitions) and forces. Retaliatory chemical munitions are "on-call", which means that they are not automatically deployed at a pre-determined time (early, mid, or late crisis). If the crisis warrants their deployment and approval is obtained, the CINCs decide priority (i.e., what equipment or forces must be "bumped" to make room for the chemical munitions). Doing this would detract from delivery of other high priority items, but this decision is based on the criticality of the situation at hand. If needed, deployment of binary munitions would be much easier than deployment of existing unitary munitions (easier handling, transportation, storage, maintenance and destruction). This inherent safety also allows for storage on naval vessels.

General **Donnelly**. To add what to what Gen. Otis has said, the airlift requirements for MC-1 bombs amounts to [deleted] C-141B load equivalents. Without gross disruption of other critical requirements we cannot even ship these weapons as fast as would need to use them. Thirty-three percent fewer [deleted] C-141B loads would be required to ship the same amount of Bigeyes and this would be spread out over a longer time frame, due to the effectiveness of the persistent agent, greatly reducing the impact.

CHEMICAL WARFARE

Senator **Levin**. General Otis and General Donnelly, we all know the defense budget will be reduced this year, and that every controversial program, if not every program, will be scrutinized for reductions. Recognizing you would not want any cuts anywhere, but also that we need sound military advice as to where we could cut with the least military impact, how would you, as military professionals, personally prioritize the various components of the binary munitions program? Specifically, which parts of the program are more militarily useful and important, the longer range systems carrying persistent agent—Bigeye bomb and the Multiple Launch Rocket System Warhead R&D—or the short-range artillery shells with non-persistent agent? Is it more important militarily for us to be able to undercut a Soviet chemical attack by striking behind the front and slowing down reinforcements, offensive airfield operations, logistics resupply for longer periods? Or is it more important for us to be able to degrade the chemical attack for a short period of time at the front? I know you would not want to choose, but given the current status and projected status of various components of our present stockpile, and if you could not have both longer and shorter range binary munitions, which would you choose to procure/continue this year?

General **Otis**. All three of the binary munitions we are requesting provide an important element in reestablishing a credible retaliatory capability. If deterrence should fail, I would need to retaliate with the right chemical agent and weapon systems for three distinct areas of the battlefield: the close in battle, mid-range battle, and the deep battle. The binary weapons we have asked for will provide an effective retaliatory capability for each of these areas. We must be able to engage the enemy at the appropriate time and place with the right agent to ensure success and cause him to terminate the use of these weapons. Therefore, I cannot give a military answer to the proper choice between these alternatives.

General **Donnelly**. There is no argument about the priority of the Bigeye. It will fill a large gap where there is currently no viable capability in either Air Force or Navy stocks.

DETERRENT VALUE OF BINARY WEAPONS

Senator **Levin**. Would new binary munitions stored in the United States have as much deterrent or war-fighting value in the defense of Western Europe as would such munitions stored in Europe? If not, why should we build such munitions before our allies agree to forward deploy them?

General **Otis**. The deterrent value of the binary munitions is not dependent upon deployment prior to need. A Commander would always prefer to have as much of his troops, tanks, trucks and artillery forward deployed as possible. The simple fact is we cannot forward deploy everything we would like. In the case of binary munitions, because of their inherent safety, we have the capability to deploy them quickly by air or sea to meet our contingency needs. The binary will give us the credible deterrent we now lack to deter Soviet initiation of chemical warfare in Europe. Furthermore, in some respects, CONUS storage, at least initially, is preferable to forward storage since CONUS is more centrally located for rapid response to the other areas of the world where there is also a chemical warfare threat.

DEPLOYMENT OF BINARY WEAPONS TO NATO

Senator **Levin**. If NATO allies—either military or civilian leaders—are so worried about the Soviet chemical warfare threat, why shouldn't we at least approach them in NATO meetings or in bilateral discussions to explore the prospects for forward deploying our new binary munitions, before they are approved? If we have approached them, which of our NATO allies committed themselves to permitting storage of binaries on their territory?

Dr. **Welch**. The United States has kept the allies informed of our plans to modernize our chemical retaliatory capabilities at each step in the decisionmaking process. We have not consulted with the allies, however, about deployment, since the United States does not have plans at this time to deploy any of these weapons in any foreign country. The allied governments have expressed no opposition or otherwise commented on the substance of the U.S. production decision. The allies are also aware that, should overseas deployment of these binary munitions be deemed necessary or desirable, the United States Government will consult fully with the nations involved prior to making any decision.

RELATIONSHIP OF BINARY WEAPONS TO OTHER DEFENSE INITIATIVES

Senator LEVIN. Secretary Welch, NATO still is engaged in the controversial program to deploy intermediate range nuclear forces—INF—the Pershing II and ground launched cruise missiles. Our allies are resisting our efforts to convince them to contribute more to bolstering the alliance's conventional defenses. Why won't congressional approval of binary munitions production hand the Soviets a propaganda victory, upset European public opinion and their governments and make achievements of important NATO defense initiatives more difficult?

Dr. WELCH. Congressional approval of binary munitions will provide greater incentive for the Soviets to conclude a chemical weapons arms ban and will provide a better deterrent to chemical war that threatens NATO civilian as well as military populations. In addition, congressional approval of binary weapons will ensure the conventional force improvements being achieved by NATO and the United States are not negated by an imbalance in chemical capabilities.

We recognize that our plan to improve our chemical retaliatory capabilities will be controversial overseas and will provide a fruitful field for Soviet propagandists and other critics. We believe a clear explanation of the threat, our program objective (deterrence), our overall program emphasis (mostly defense), and our increased arms control leverage will allow the United States and our allies to manage this issue.

BIGEYE BINARY CHEMICAL BOMB

Senator LEVIN. Each year the Pentagon says that it has solved the problems with the Bigeye bomb; each year, further examination of Bigeye tests show continuing or new problems. GAO last October said the program still had technical problems. Why should the committee believe that Bigeye finally is ready for production? Has testing concluded that the bomb is operational within the full required temperature range? If not, why should we produce? Are any other requirements not being met? If so, why should we produce?

Dr. WELCH. During technical testing of Bigeye we have found and corrected several problems, mostly minor. We never expect a perfect weapon when we start technical testing. Test results now indicate that Bigeye will meet all operational requirements. For example, the Navy has conducted extensive successful captive carry and safe separation testing on the A-6, the primary Navy/Marine attack aircraft. Catapult and arrested landing tests were successfully conducted on the A-7 aircraft, the worst-case for such tests. Air Force has successfully demonstrated supersonic carriage and safe separation with the F-4 and is completing tests on the F-16 and F-111. Specially configured and telemetered weapons were carried by Navy F/A-18 and Air Force F-111 aircraft to provide real-time temperature data to confirm computer models for predicting weapon temperatures. Vibration testing was conducted on aircraft to ensure that no operational problems would be encountered. Dissemination testing (with simulant chemicals) was conducted on a specially configured range at Dugway Proving Grounds Utah to determine actual ground patterns and densities for confirmation of computer predictive models. Weapons were subjected to environmental extremes of temperature, temperature shock, vibration, humidity, salt-spray, launch shock, transportation and handling shock. These same weapons were then functioned at temperature extremes of −40° F. to +140° F. Tests were conducted for Hazards of Electromagnetic Radiation to Ordnance (HERO) simulating the environment aboard an aircraft carrier, the worst-case for electromagnetic conditions. Seven toxic chemical tests were conducted by the Army in their special chemical test chamber at Aberdeen, MD in actual Bigeye bomb bodies. These tests demonstrated that, over the expected operational temperatures, lethal agent can be produced in the required time and without excessive pressure build up. Logistics procedures, technical manuals and training plans have been produced to ensure that the human side of the weapon equation was not overlooked. Operational Testing by both Air Force and Navy independent test commands will take place during the spring and summer of 1985. These test agencies represent the eventual operators and will rigorously test Bigeye under operational conditions to the limits of the operational envelope. It is expected that successful testing will lead to a Limited Production decision in December 1985 with a production contract awarded in the second or third quarter of fiscal year 1986.

CHEMICAL DEFENSE REQUIREMENTS

Senator LEVIN. Secretary Welch, what are the chemical warfare defensive requirements for each of our armed services, both Active and Reserve Guard components? Provide annual funding and items procured in each year of the fiscal year 1986–90 defense program. In each category, by what year will the requirement be met for each service (active and reserve). What would it cost, each year in fiscal year 1986–90 (dollars and items) to accelerate meeting that requirement by one year? Two years? 20 percent per year in fiscal year 1986–90?

Secretary **Welch.** We will answer these questions in sequence beginning with the Army program, followed by the Air Force, Marines, and finally the Navy.

The total Army chemical warfare defense effort is composed of numerous elements, and many of them don't separate into Active and Reserve components. Examples are RDTE, medical support, and war reserve requirements. Most items of individual chemical defense equipment are stock funded, while the mask and other equipment are procurement funded. Procurement of all equipment is based on a total Army requirement. Active and Reserve units are issued these items based on a priority sequence; early deploying Reserve component units are filled before later deploying units. The information which follows shows procurement for chemical defense by appropriation. Research and development, testing, operating and training costs, and other such functions are not shown.

Protective masks, unit level detectors and alarms, unit level decontamination equipment, and collective protection equipment are purchased with Other Procurement Army funds. The programed funding, by category, is:

[In millions of dollars]

	Fiscal year—				
	1986	1987	1988	1989	1990
Detection equipment	19	59	125	162	308
Protective equipment	37	100	100	102	75
Decontamination equipment	6	19	40	42	44

Individual protective clothing, decontamination kits, detector kits, and accessories are stock fund items and are purchased with OMA funds. Active funds initial issue is complete, and the Reserve components should be complete by the end of fiscal year 1987. These funds also provide replacements for items consumed in training and new items as they are available. The funding requirements at this time are:

[In millions of dollars]

	Fiscal year—				
	1986	1987	1988	1989	1990
Active	39	38	38	40	40
Reserve	6	8	8	8	8
Guard	14	14	13	13	13

The Army Stock Fund secondary items war reserves program provides funds for sustaining [deleted] war reserves of stock fund items primarily for chemical protective clothing and chemical agent detector kits. Fill of war reserve requirements for Europe is programed to be completed in [deleted]. The funding requirements are:

[In millions of dollars]

Fiscal year:	
1986	91
1987	115
1988	135
1989	145
1990	152

The Army's procurement program continues the overall strategy for our chemical defense equipment posture. The initial step was to procure adequate quantities of equipment already available even though it was based on old technology. While doing that, we began development of improved equipment using current technologies. The Army is now beginning to procure these "2d generation" items. Since 1982, the Army has made a substantial investment in research to improve the technical base. In fiscal year 1987-88, the Army will begin Advanced Development of "3d generation" equipment. This equipment will be fielded in the late 1990s. Besides better performance through using advanced technology, these equipments will have multi-purpose capability. This will reduce the logistics load on the unit and improve overall operational capability.

The Army's procurement strategy for chemical defense equipment represents a balanced approach to the chemical defense problem. It incorporates shortened development and procurement schedules, where technology permits, a particularly urgent requirement exists and development risks are acceptable. It is constrained by the technology available and, sometimes, by the production base and affordability. In general, chemical defense development programs are technology rather than funding constrained. Some procurement programs are constrained by affordability; however, this is necessary to maintain a balance between modernization the Army's other capabilities and modernizing our chemical defense capabilities while staying within current funding constraints.

As the figures above show, chemical defense procurement requirements increase significantly beginning fiscal year 1987. The Army will appreciate your continued support at that time.

For the Air Force, the attached chart shows the annual funding and items to be procured in each year of the fiscal year 1986-90 defense program. The year in which the requirement will be met for all forces is indicated by zeros to the right of the funding profile on the chart.

The Air Force would like to accelerate procurement of chemical defense items. Unfortunately, most of the items listed in fiscal year 1986-90 cannot be accelerated due to technological considerations, developmental and operational testing schedules, production capacities, and contractual lead times. The following is a best estimate assessment of the feasibility and cost to accelerate items:

Area Detection System. Cannot be accelerated until additional work is completed on applying proven laboratory technology to field application.

Aircrew Respiratory Protection. Cannot be accelerated due to the need to complete final testing of several promising candidates, and to perform analyses on integrating the respirators with the life support systems of aircraft.

Automatic Liquid Agent Detector. Cannot be accelerated until successful completion of ongoing operational testing.

Body Cooling System. Cannot be accelerated until additional development is completed on thermal reduction technology.

CHEMICAL WARFARE DEFENSE PROGRAM SUMMARY

	Fiscal year—				
	1986	1987	1988	1989	1990
Area detection system	0	0	0	20.8	32.6
Aircrew eye/respiratory protection	0	10.4	23.5	43.9	56.3
Automatic liquid agent detector	2.3	4.5	10.7	0	0
Body cooling system	0	0	11.4	18.3	18.9
Ground crew mask (MCU-2/P)	2.8	25.9	32.8	37.2	2.9
Individual vapor detector	0	0	3.4	7.1	10.9
Lightweight decontamination system	0	0	4.9	9.9	11.9
Mask (M17A2)	5.7	0	0	0	0
Surface contamination monitor	3.8	11.8	20.4	23.3	33.9
Survivable collective protective system	63.5	80.4	129.9	109.1	113.1
Transportable collective protective system	0	0	32.8	31.2	69.6
Walk thru scanner	0	0	3.4	8.2	13.5
*Appropriation 3300 CP facility MOD	4.4	11.4	11.8	12.2	12.6
*Appropriation 3400:					
Ensemble aircrew old	1.8	0	0	0	0
Ensemble new aircrew	0	7.6	8.1	8.5	9.0
Ground crew ens old	39.2	0	0	0	0

CHEMICAL WARFARE DEFENSE PROGRAM SUMMARY—Continued

	Fiscal year—				
	1986	1987	1988	1989	1990
Ground crew ens new	0	43.3	66.4	68.8	72.8
HGU 55/P helmet	0	0	0	0	0
Support equipment	7.8	6.6	8.7	9.4	8.2

Groundcrew Mask (MCU-2/P). Could possibly accelerate by one year in fiscal year 1987 when full-rate production is scheduled to start. This would most likely require production by two manufacturers due to tooling and facility limitations. Estimated cost to accelerate is $46.7M ($6.1M for tooling and $40.6M for production) in fiscal year 1987 and $52.8M in fiscal year 1988 for production. Low-rate production for replenishment would begin in fiscal year 1989 instead of fiscal year 1990.

Individual Vapor Detector. Cannot accelerate until R&D and testing are completed.

Lightweight Decontamination System. Not practical to accelerate because procurement ends in fiscal year 1985.

Groundcrew Mask (M17A2). Not practical to accelerate because procurement ends in fiscal year 1986.

Surface Contamination Monitor. Cannot accelerate until R&D and testing are completed.

Survivable Collective Protection Systems. Could possibly accelerate by two years starting in fiscal year 1989. This would complete known requirements in fiscal year 1991 instead of fiscal year 1993 as presently programed. Estimated cost to accelerate is $167.1M in fiscal year 1989, $171.3M in fiscal year 1990, and $194.2M in fiscal year 1991.

Transportable Collective Protection Systems. Cannot accelerate until R&D and testing are completed to find weight materials offering maximum blast and shrapnel protection.

Walk-through Scanner. Cannot accelerate until R&D and testing are completed.

First Generation aircrew ensemble cannot be accelerated as the buy will be completed in fiscal year 1986. Second generation aircrew ensemble could be accelerated in fiscal year 1988. Old ground crew ensemble cannot be accelerated as the buy will be completed in fiscal year 1986. New ground crew ensemble could be accelerated in fiscal year 1988. HGU 55/P helmet cannot be accelerated as the buy is being completed this year.

The following table lists the chemical warfare defensive requirements for the Marine Corps active and reserve forces, given current technology. Amounts in parentheses are the budgeted funds approved in the fiscal year 1986 Presidential Budget.

NBC DEFENSE EQUIPMENT REQUIREMENTS

[Fiscal year 1985 dollars]

	1986		1987		1988		1989		1990	
	Amount	Budgeted	Amount	Budgeted	Amount	Budgeted	Amount	Budgeted	Amount	Budgeted
Individual protection:										
NBC suit	15.3	(8.3)	10.8		10.8		10.8			
XM40 field prot mask					13.3		13.3		13.3	
Decontamination:										
M12A1 decon apparatus	1.2	(1.2)	1.3	(1.3)						
M13 portable decon appar			2.1		2.1		3.3			
Lightweight decon system					4.6		4.8		5.6	
Detection:										
M8 automatic agent alarm	1.9	(1.9)	1.5	(1.5)						
Chem agent monitor					3.6		3.7		3.6	

NBC DEFENSE EQUIPMENT REQUIREMENTS—Continued

[Fiscal year 1985 dollars]

	1986		1987		1988		1989		1990	
	Amount	Budgeted	Amount	Budgeted	Amount	Budgeted	Amount	Budgeted	Amount	Budgeted
Collective protection:										
Rest and relief			2.0		2.0		2.0			
C2 and medical			2.0		2.0		2.0			
Total	18.4	(11.4)	15.7	(2.8)	38.4	(0.0)	39.9	(0.0)	26.5	(0.0)

The only NBC defensive program for which the Marine Corps is lead service is the NBC Combat Suit. Procurement for that project is not limited by production capability. Consequently, the cost of accelerating the program by one year would be $5.4 million per year in fiscal year 1987 and fiscal year 1988, which represents the $10.8 million now planned for fiscal year 1989. A two-year acceleration would require that the $21.6 million planned for fiscal year 1988 and fiscal year 1989 be moved to fiscal year 1987. A 20 percent acceleration would be practically equal to the one-year acceleration described above.

The remainder of the program are joint programs for which the Army is the lead service. The Marine Corps defers comment to the Army on costs and practicality of accelerating these programs.

CHEMICAL DEFENSE REQUIREMENTS

The following chart shows the annual funding for Chemical-Biologial-Radiological (CBR) defense items to be procured for the Navy in the fiscal year 1986–90 defense program. The year in which Navy requirements will be met is indicated by zeroes to the right of the funding profile on the chart.

[In millions of dollars]

	Fiscal year—				
	1986	1987	1988	1989	1990
Mk V mask canisters	1.6	0	0	0	0
CBR protective ensembles	12.3	16.8	15.5	20.3	20.4
MCU-2/P masks and canisters	21.4	10.4	10.0	15.5	15.4
Air crew CBR protection	5.9	9.0	11.4	11.3	11.7
M258A1 decon kit	.5	.1	0	0	0
M58A1 trng. decon kit	.03	0	0	0	0
Atropine	.6	.3	.3	0	0
2 PAM chloride	.5	0	0	0	0
Pre-treatment tablets	0	0	.2	.2	0
M256 detector kit	.6	.6	.3	0	0
M256 trng. kit	.2	.1	0	0	0
M9 detector paper	.1	.1	.1	0	0
M8 alarms	.3	.3	.3	0	0
M272 water test kit	.1	.1	0	0	0
Chemical agent monitor	.5	5.2	2.5	0	0
Chemical agent point detect	8.0	4.7	7.3	3.2	3.2
CW directional detect. (CWDD)	7.4	6.6	10.4	16.0	22.2
HTH/STB/DS-2	.1	.1	.1	0	0
Transportable collective protection system	3.0	2.9	3.2	3.1	2.9

Navy would like to accelerate procurement of CBR defense items in a balanced program to improve our chemical warfare posture. Unfortunately, many of the items can not be accelerated due to technical or other considerations.

CBR Protective suits could be accelerated, however, Navy is trying to qualify an American manufacturer and also examining other protective suits as potential replacements.

Air crew protective mask procurement could be accelerated, but is now paced to air frame compatability and overseas base CBR defense posture.

MCU-2/P could be accelerated after the scheduled fiscal year 1987 full-rate production commences. Air Force has already provided the estimated cost of accelerating the program.

Collective Protection Systems: The cost of providing collective protection systems (CPS) to our new construction ships has not been addressed, as it is part of ship construction cost. Navy is investigating the feasibility is installing collective protection systems in existing ships. Cost of such installation will vary from class to class and perhaps even from ship to ship. Navy will commence providing collective protection to its overseas bases with the procurement of transportable shelter systems in fiscal year 1986. Surveys of overseas naval facilities to determine the nature and extent of required collective protection systems to support vital combat operations in a chemical environment commence this summer. In POM-87 Navy will address survivable collective protection systems requirements based on results of the first surveys.

Procurement of the Chemical Warfare Directional Detector could possibly be accelerated starting in fiscal year 1986 and the Chemical Agent Point Detector starting in fiscal year 1987.

Procurement of the stock support material such as M256 kits, decontamination solutions and kits, etc. could be accelerated. The present procurement rate is paced with procurement of other protective equipment and with overseas base CBR improvements.

An effective defensive posture is vital for the Navy to survive and function in a contaminated environment, but it will not deter hostile the use of CW. No development in protective equipment is now available that will provide substantial relief from the operational degradation created by the protective posture requirements of chemical warfare. Defensive equipment alone can not be expected to significantly reduce the possible advantages accruing to an enemy who can initiate chemical warfare without the fear of retaliation that would place his own forces in a similarly degraded operational posture. With increasing Soviet capabilities in delivery of precision guided munitions and the proliferation of offensive chemical warfare capabilities in the third world, the chemical warfare threat continues to increase for all Navy forces. We lack the modern munitions necessary to present a credible retaliatory capability to deter enemy first use of chemical weapons.

Chairman **Goldwater**. Mr. Emery, would you please proceed with your statement?

STATEMENT OF DAVID EMERY, DEPUTY DIRECTOR, ARMS CONTROL AND DISARMAMENT AGENCY

Mr. **Emery**. Thank you very much, Mr. Chairman.

First of all, let me say how much I appreciate the opportunity to appear this morning. I want to associate myself with the remarks of the previous speakers which I think outline the nature of the problem very eloquently and capably.

From an arms control standpoint, of course, we are equally concerned about the viability of our own arsenal, and the ability of our protective measures to protect American servicemen and support personnel in time of war.

I would have to say that arms control does not simply mean giving up capability that we have. It means maintaining a deterrent capability so that the enemy knows that the consequences of using a weapon of this kind would be swift and certain retaliation in kind.

One of the previous speakers mentioned, and I think the historical note is very well worth remembering, that on one occasion, World War I, when the enemy had chemical weapons and used them, then there was great devastation. Of course, the allies responded with a much reduced capability.

But in World War II after seeing the destructive potential and the horror of World War I, both sides maintained chemical arsenals, but they were not used. Even in the madness of Nazi Germany, in the very desperate days toward the end of World War II, that option was never regarded as a logical, viable response.

I think that plus other incidents in recent history demonstrate very eloquently the need for the United States and our allies to maintain a chemical deterrent while we are pursuing arms control options.

We think that is undeniable that, for the United States to allow its deterrent or defense capability to languish to the point of insignificance, would be only to invite chemical adventurism, not only between the Soviet Union and our allies if a conflict should break out, but also in other areas such as the Middle East or in a Third World and where political and military pressures mount and where dictators or power hungry individuals who, God forbid, have technological capability, may start thinking about employing a weapon of this kind to horrible effect.

So, we feel it is absolutely essential that we maintain not only the deterrent capability and defensive capability to protect our people, but also to pursue the second element, which is arms control.

Now, to that end the administration has presented to the Conference on Disarmament in Geneva a draft treaty which was presented a year ago by Vice President Bush. I was there with him at the time. I can report that the U. S. initiative was received very well, very enthusiastically, by many of the nonaligned nations and, of course, by our allies.

I would have to say that some of the Eastern nations as well have demonstrated some interest in moving ahead. There may be disagreement on details and certainly when any draft proposal is presented, questions are raised and that is altogether proper and fitting.

Our proposal focuses essentially on three areas. One is the question of stockpile destruction, identification of existing stockpiles of chemical weapons and an orderly and verifiable means of destroying them.

The second aspect focuses on the existence of manufacturing and storage facilities, identifying where they are and guaranteeing their destruction to the point where they cannot be put to effective military use.

The third and possibly the most complex and controversial area is a method by which we may ascertain clandestine manufacture or clandestine storage. We call this the open invitation provision, if you will.

This is a challenge inspection mechanism which essentially would allow treaty partners or inspection teams to examine potential violations, whether they be in the United States or Soviet Union or any other land, equal application of this provision to any and all treaty parties to guarantee to those who participate and to the rest of the world that no side is illegally manufacturing or storing chemical weapons.

Now, this brings us to a discussion of one of the most difficult aspects of this chemical weapons treaty activity; that is, guaranteeing beyond a reasonable doubt that no side is able to stockpile illegal chemical weapons that might be brought to bear in a political-military situation to the detriment of those who obeyed the treaty and followed its provisions to the letter.

We feel that effective verification provisions are essential. The fact that many common chemical feedstocks and facilities may be employed in the manufacture of chemical weapons, makes onsite inspection, in some cases, indispensable and, in almost all cases, necessary and desirable.

Now, fortunately, the Soviet Union has shown an interest in some aspects of onsite inspection for a chemical weapon treaty. When we presented our draft treaty a year or more ago and even before that some indication had come through Soviet channels that, yes, they would consider onsite inspection under some circumstances, particularly for destruction of existing stockpiles.

Now, they have not made a commitment to go beyond that, to include inspection of military facilities or to deal with onsite inspection requirements that we envision under article 10 of the draft treaty.

Nevertheless, we think it is significant that, in principle, under some circumstances that sort of onsite inspection requirement has been at least accepted. We think that is significant and encouraging.

The Soviets, however, have rejected the article 10 provision which deals with the so-called open invitation provision and we, through appropriate diplomatic channels, have challenged them to provide us with an alternative.

As the President and Vice President have said, we do not offer this treaty as a take it or leave it proposition. We go to the table hoping for a fair exchange of ideas and hoping that the Soviets will come forward with alternatives if they so choose and present us with their ideas on the subject.

What we ask, however, is that they accept the fact that we will not agree to verification on good faith. We have had a number of experiences with that in the past in areas other than chemical weapons and we in the administration do not believe that that is an adequate guarantee.

However, we can envision any number of ways that chemical weapons verification can be improved or enhanced. We have outlined our ideas in the draft treaty. We hope that the Soviets will seriously consider the challenge that faces both East and West and come forward with a number of ideas that might lead to a negotiated treaty that can ban and eliminate chemical weapons from the arsenals of both East and West.

Let me say also, Mr. Chairman, that although we believe that there is a very great need for onsite inspection, there may also be other ways that verifications can take place. We have the capability in some instances to monitor the supplies of certain feedstocks.

We are very anxious to guarantee that nations with which we have influence, ourselves and our allies, are very mindful of the problem of chemical weapon proliferation. We have worked with a number of States to ensure that chemical materials that might be diverted to weapons manufacture are not diverted. We think that is extremely important.

Also I would say that this is not simply a bilateral matter. It is not simply an issue for the United States and the Soviet Union, but indeed this is an arms control issue that should be of concern to the entire world.

The fact of the matter is that we are not talking necessarily about highly technical matters. We are not talking about an elaborate electronics or nuclear physics or many technologies that are within the grasp of relatively few nations.

We are talking about materials that in many cases can be bought in hardware stores or can be bought from chemical supply houses, materials which in their own right are totally benign, totally legal and may be bought and sold not only here in the greater Washington, DC, area, but internationally as well with very few restrictions. So, it is a very real problem.

We feel that it is essential for the Committee on Disarmament in Geneva to arrive at a multilateral agreement which embodies the provisions we have outlined, or at least provisions that address the problems that we feel are important and to guarantee that any nation that has the capability of manufacturing and distributing chemicals will recognize that it has a responsibility to ensure that chemical weapons do not proliferate.

Mr. Chairman, if there are any questions that I can answer, I will be very happy to do that.

Again, I appreciate the time you have given me this morning.

[The prepared statement of Mr. Emery follows:]

PREPARED TESTIMONY OF DAVID F. EMERY, DEPUTY DIRECTOR, U.S. ARMS CONTROL AND DISARMAMENT AGENCY

Mr. Chairman, it is a pleasure to be here today to discuss with the committee the administration's position on chemical weapons arms control and its relation to the negotiations at the Conference on Disarmament in Geneva.

I first plan to briefly discuss with you the history of attempts to control chemical weapons and their blatant use in recent years, despite those attempts. I'll then discuss the current status of the CW negotiations and the interplay between our negotiations and the administration's program for binary weapons production.

For nearly as long as chemical weapons have been part of the world's arsenals, civilized men and women have sought to control or even eliminate these weapons.

In 1899, the first discussions on CW in modern times were held at the Hague. The results of these discussions were the Hague conventions of 1899 and 1907, which bound the signatories: "To abstain from the use of projectiles the sole object of which is the diffusion of asphyxiating or deleterious gases."

The United States questioned the effectiveness of such agreements in wartime, and, as a result, declined to sign the 1899 convention. Our worst fears were realized with the on-slaught of World War I and the first, large-scale battlefield CW use.

By the end of the war, chemical weapons comprised more than 20 percent of the artillery munitions used, and were responsible for 90 thousand deaths and 1.2 million casualties among the seven countries in the war.

The horror of WWI convinced the allies to reaffirm in the Versailles Treaty of 1919 the prewar Hague prohibition of the use of poisonous gases. In 1922, the United States took the initiative of introducing a similar provision—at the Washington Arms Conference—into a treaty on submarines and noxious gases: although ratified without difficulty in the United States, the treaty unfortunately never entered into force because of objections to the submarine provisions.

The next international effort to control chemical weapons through arms control took place at the Geneva Conference of 1925. Once again, the United States took the initiative by presenting an amendment prohibiting the export of gases for use in war. The result of the conference was the Geneva Protocol of 1925 prohibiting the use in war of asphyxiating, poisonous or other gases, and of bacteriological methods of warfare. The 1925 protocol does not prohibit production or possession of chemical weapons, nor does it contain verification provisions to ensure that parties are in compliance. These shortcomings have been vividly illustrated in our difficulties in confirming the continued use of chemical weapons in Southeast Asia and Afghanistan.

The next major initiatives for dealing with gas warfare were the 1932-1937 sessions of the World Disarmament Conference. Although unsuccessful, attempts were made to work out an agreement that would prohibit the actual production and stockpiling of chemical weapons. It should be noted that in 1936, during these sessions, the Nazis developed the nerve agent Tabun, which has recently been used by Iraq in its war with Iran.

Despite the fact that the protocol had been in effect for ten years, poison gas was used in Ethiopia during the period 1935 to 1936. It has been estimated that 15,000 out of a total of 50,000 Ethiopian Army casualties were caused by this use of chemical weapons.

During World War II, new and more toxic nerve gases were developed. On June 8, 1943, President Roosevelt warned the axis powers against the use of chemical weapons. President Roosevelt said:

"Use of such weapons has been outlawed by the general opinion of civilized mankind: This country has not used them, and I hope we never will be compelled to use them. I state categorically that we shall under no circumstances resort to the use of such weapons unless they are first used by our enemies."

And he promised:

"Full and swift retaliations in kind . . . throughout the whole extent of the territory of such axis country."

German archives uncovered after the war make it clear that it was the allies' resolve to retaliate in kind—and their possession of the weapons necessary to do so—that forestalled the initiation of chemical warfare. This policy—credible chemical deterrence in the face of a credible threat—has been a cornerstone of U.S. chemical weapons policy ever since.

Shortly after President Nixon took office in 1969, he ordered a review of U.S. chemical warfare policy and capabilities. On November 25, 1969, the President reaffirmed that the U.S. would not be the first to use lethal or incapacitating chemical agents and weapons and unilaterally renounced the use of biological weapons under any circumstances. On February 14, 1970, the White House announced extension of the ban on biological weapons use to cover toxins as well (substances that are poisonous chemicals but are ordinarily produced by biological processes). The Defense Department promptly destroyed existing stocks.

On January 22, 1975, President Ford signed the instrument of ratification for the 1972 Biological and Toxin Weapons Convention. The convention entered into force on March 26, 1975.

Under the terms of the convention, the parties agreed not to develop, produce, stockpile, or acquire biological agents or toxins, nor weapons and means of delivery. Both the United States and Soviet Union are parties to this treaty as are Afghanistan, Laos and Vietnam.

In the late-1970's, reports began reaching the West from Laos on chemical attacks against Hmong villages and guerrilla strongholds. Hmong refugees gave details of attacks by a toxic agent which came to be known as "yellow rain." Analysis of this agent by qualified scientists in the U.S. and other countries revealed that it contained trichothecene toxins, which cause vomiting, bleeding, blistering, severe skin lesions and other symptoms. These experts have concluded that no naturally occurring disease, plant or animal could have caused these physical effects.

In 1978 there were confirmed reports of Vietnamese use of toxins in Kampuchea. Analyses of blood, tissue, urine and other samples from victims of attacks from both Laos and Kampuchea have been performed in a number of countries, leading to the conclusion that illness has been caused by toxin agents.

Reports that the Soviets used chemical agents following their 1979 invasion of Afghanistan were confirmed by scientific evidence and corroborated by testimony from Soviet and Afghan personnel directly involved in the chemical attacks.

In 1982, the U.S. Government issued two reports summarizing its analysis of chemical and toxin weapons in Laos, Kampuchea, and Afghanistan. The reports concluded that:

"Lao and Vietnamese forces, operating under Soviet supervision, have, since 1976, employed lethal chemical and toxin weapons in Laos.

"Vietnamese forces have, since 1978, used lethal chemical and toxin agents in Kampuchea.

"Soviet forces have used a variety of agents and toxins, against Mujahidin resistance forces in Afghanistan."

The evidence for these conclusions includes: Testimony of those who suffered chemical weapons attacks; testimony of doctors and others who questioned the victims of chemical warfare; testimony of those who engaged in chemical warfare or were in a position to observe others who had done so; scientific evidence; and intelligence derived from "national technical means," and other intelligence means. Other countries have assembled similar evidence through their own investigations.

In 1982, the U.N. investigated reports of chemical weapons use in these areas and found evidence that chemical agents had indeed been used. In addition, Thailand and Canada have made their evidence and conclusions a matter of public record, while still others have publicly agreed with these conclusions.

In a February 1984 report to the U.N., the U.S. noted an apparent decline in 1983 in the use of toxin agents in Laos. In Kampuchea, the level of the use of toxins remained essentially the same as in 1982, and nonlethal incapacitating and riot control agents were used more frequently. In Afghanistan, chemical attacks were reported to have continued, but these reports have not been confirmed.

Throughout 1984, and thus far in 1985, reports have continued of use of chemical weapons in Southeast Asia and Afghanistan. We have not, however, been able to confirm these reports.

As you will recall, the President's 1985 report to the Congress on Soviet noncompliance with arms control agreements underlined that current evidence confirms and strengthens the conclusion that:

"The Soviet Union has maintained an offensive biological warfare program and capability in violation of its legal obligation under the biological and toxin weapons convention of 1972."

In addition, the report found:

"No basis for amending the January 1984 conclusion that the Soviet Union has been involved in the production, transfer and use of trichothecene mycotoxins for hostile purposes in Laos, Kampuchea and Afghanistan in violation of its legal obligation under international law as codified in the Geneva Protocol of 1925 and the Biological and Toxin Weapons Convention of 1972."

In another part of the world, the use of chemical weapons has been even more blatant. I refer, of course, to the Iraqi use of lethal chemical weapons against Iran. Following U.S. confirmation and condemnation of Iraqi chemical attacks, the U.N. formally investigated this use in 1984 and conclusively reported that both mustard gas and the nerve agent tabun were used against Iranian forces. I should emphasize that this use occurred despite the fact that both Iran and Iraq are parties to the 1925 Geneva Protocol, prohibiting the use of chemical weapons in war.

The dramatic evidence that chemical weapons have been used in current conflicts makes it clear that the capability to use chemical weapons is spreading. This proliferation poses a threat to all countries, particularly those in the third world. It greatly increases the risk that chemical weapons will be used in future conflicts, causing horrible suffering and weakening the 1925 Geneva protocol further. In addition, the spread of chemical weapons would undermine efforts to reduce tensions in key areas, such as the Middle East, and will make it more difficult to negotiate a comprehensive ban on chemical weapons.

The best solution to this problem is to complete work on a complete and verifiable chemical weapons ban, and we are working hard toward that end in Geneva. In the meantime, the U.S. has initiated special export controls on selected chemicals which could be used to produce chemical agents. A number of our allies have also joined us in imposing controls and the U.S. continues to strongly encourage other nations to place similar restrictions on dangerous chemicals.

The United States considers the continuing and spreading use of chemical weapons an extremely grave matter. In his speech to the second special session on disarmament in June 1982, President Reagan called world attention to the use of chemical weapons in Afghanistan and Southeast Asia. He said:

"The use of chemical and biological weapons has long been viewed with revulsion by civilized nations. No peacemaking institution can ignore the use of these dread weapons and still live up to its mission. The need for a truly effective and verifiable chemical weapons agreement has been highlighted by recent events. The Soviet Union and their allies are violating the Geneva Protocol of 1925, related rules of international law and the 1972 Biological Weapon Convention. There is conclusive evidence that the Soviet Government has provided toxins for use in Laos and Kampuchea, and are themselves using chemical weapons against freedom fighters in Afghanistan.

This statement was the first of a series of events which culminated in the U.S. presentation in 1984 of a draft convention to ban chemical weapons to the 40-nation conference on disarmament in Geneva.

The introduction of the U.S. draft treaty marked Vice President Bush's second appearance before the conference.

His first visit was in February 1983, when he announced that the United States would like to see the work of the committee accelerated, and negotiations undertaken on a treaty to eliminate the threat posed by chemical weapons.

In his 1983 speech the Vice President set the stage for the standard of verification the United States would expect in a treaty to ban chemical weapons:

"The key to an effective convention—one that could eliminate the possibility of chemical warfare forever—is the firm assurance of compliance through effective verification. This principle is fundamental. Effective verification, as the world's recent experience with the use of chemical and toxin weapons shows, is an absolute necessity for any future agreement. This is why the United States seeks a level of verification that will protect us, our allies, and indeed humanity itself. For today, the threat of chemical warfare has increased. And until an effective agreement can be achieved, the United States, just as others, must continue to ensure that it can deter the use of chemical weapons against its citizens and friends. If we are to expect nations ever to forego the ability to deter chemical warfare, those nations must have confidence that others who accept the prohibition cannot circumvent their obligations and later threaten the peace with chemical weapons. They must be certain that they will not be attacked with such weapons by any state which, like they, has foresworn chemical warfare. In short, for us, the verification and compliance provisions of a comprehensive chemical weapons treaty must be truly effective."

In November 1983, the United States sponsored a two-day workshop in Salt Lake City and at the Tooele Army Depot for member and observer nations of the Conference on Disarmament to demonstrate potential on-site verification procedures for the destruction of chemical weapons. Of the Soviet and Eastern European countries, only Romania accepted the invitation to attend the Tooele workshop.

On April 18, 1984 the Vice President presented the draft treaty to the 40-Nation Conference on Disarmament. In doing so he told the conference that:

"For a chemical weapons ban to work, each party must have confidence that the other parties are abiding by it. This elementary, common sense principle is the essence of what we mean by verification. No sensible government enters into those international contracts known as treaties unless it can ascertain—that it is getting what it contracted for."

While we were preparing this treaty, we fully realized that a verification regime to ensure that commitments will be honored is especially difficult to structure for a chemical weapons ban. After much careful deliberation, we decided that a new and unprecedented openess is required by all nations to make a ban on these weapons effective. This was a hard choice and led us to propose unprecedented compliance and verification provisions.

Mr. Chairman, these provisions are tough, but they must be tough in order to achieve the highest degree of confidence possible. Please note that we are talking about the highest degree of confidence possible because 100 percent confidence can probably never be achieved. We must, as Vice President Bush said, be able to verify that we are getting what we contract for.

Let the world harbor no doubt that the United States is serious about this proposed ban. We have watched as the 1925 Geneva Protocol and the 1972 Biological and Toxin Weapons Convention were violated because these agreements lack effective verification and compliance provisions. Last month, at the Conference on Disarmament (CD) in Geneva, Kenneth Adelman, the Director of ACDA, reaffirmed our strong commitment to negotiating a chemical weapons treaty and exhorted the conference to adopt the completion of this treaty as its number one priority. Our allies, as well, have joined with us in the commitment to obtaining a chemical weapons treaty and have adopted the U.S. draft treaty as the allied basis for negotiation at the CD.

The United States has a two-part strategy for achieving a chemical weapons ban. First, we accord the highest priority to conducting multilateral negotiations in the CD. This year's session has recently resumed its talks and shows some promise for progress. We particularly foresee increased willingness on the part of the conferees to delve into the details of procedures. Though this route we are confident we can demonstrate the feasibility of the U.S. verification proposals and can convince the conference of their suitability for inclusion in a comprehensive CW Treaty.

The second part of our strategy for a CW ban involves bilateral discussions with the Soviet Union. As a result of a U.S. proposal, such bilateral discussions were initiated in July 1984. The purpose of these discussions is not to negotiate privately on the multilateral convention. Rather, it is to consider jointly how best to ensure that each side will have confidence in the other's compliance with the provisions of the convention. We view such bilateral efforts as a complement to the multilateral work, not as a substitute for it.

The 1984 discussions were preliminary in nature and concluded when the CD adjourned in last August. Both sides have indicated a willingness to continue them this year and we hope to do so next month.

To be honest, however, despite our multilateral and bilateral contacts, the Soviet Union has continued its decade-long history of procrastination and delay in seriously negotiating a chemical weapons ban. It has failed to comment constructively on our treaty proposal. The only substantial progress we have made with the Soviets was their 1984 acceptance of our ideas for continuous monitoring to verify the weapons destruction process envisioned under the treaty.

In the January 1985 session at the Conference on Disarmament, the Soviet tone has changed slightly, a movement away from the fierce polemics that we have grown to expect. Nonetheless, they have not altered the basic substance of their position and have shown no real willingness to negotiate seriously on the essential parts of the compliance and verification regime.

It appears to me, Mr. Chairman, that the Soviets do not have a clear incentive to negotiate a chemical weapons ban with us. We must ask, Mr. Chairman, why the Soviets would want to negotiate away a clear military advantage. In 1969, the United States unilaterally ceased production of chemical weapons and has not produced any chemical weapons since then. Our 15 years of restraint has, however, failed to induce any reciprocal restraint on the part of the Soviets.

Soviet Armed Forces have enjoyed extensive modernization and growth in all areas of chemical capabilities. The Soviet Union continues to test, produce and stockpile chemical weapons. Moreover, the Soviets have in place the personnel and equipment to support the wide-spread use of chemical weapons. Many analysts believe that this chemical warfare capability gives the Soviets a significant military advantage if used in a conventional conflict. The continued testing of chemical weapons, enlarged storage capacity for chemical agents and weapons, and the existence of active production facilities are among the indicators of unabated Soviet chemical weapons activities. These factors, along with the evidence of the use of chemical and toxin weapons by the Soviets and their clients in Afghanistan, Laos, and Kampuchea, unquestionably reflect a drive to strengthen and improve their ability to wage chemical warfare. There is no other plausible explanation.

Today, the Department of Defense tells us that due to the condition of our chemical munitions stockpile, we can no longer deny a significant advantage to the Soviets should they initiate chemical warfare. This asymmetry is militarily dangerous and undermines deterrence of the use of chemical weapons. At the same time, it provides no incentive to the Soviets to negotiate an end to their superiority. The need to modernize our current stockpile appears clear.

Mr. Chairman, perhaps we can draw a parallel from the bilateral talks on nuclear and space weapons that are scheduled to begin in two weeks in Geneva. Would the Soviets have agreed to negotiate with us if they did not feel the pressure of our current programs, such as INF deployments, the cruise missiles, MX and SDI? I think not. It appears to me that our current efforts to give our Armed Forces the protective equipment necessary to defend themselves against a possible use of chemical weapons are completely necessary. But they hardly seem sufficient as a lever to induce the Soviets to negotiate an end to these weapons.

Mr. Chairman, in his address to the Conference on Disarmament, Mr. Adelman expressed the hope that we could negotiate the Chemical Weapons Treaty this year. We all fervently join in his hope, but at the same time must recognize that, even if we were to reach full agreement on all aspects of the treaty this year, it would be another 2 to 4 years before we could expect that it would be actually implemented. With the destruction schedules the international community envisions, this means that the Soviets would retain a chemical weapons capability out to the turn of the century. Our retaliatory capability would obviously have to last just as long.

Mr. Chairman, this is an appropriate point for me to quote from Mr. Adelman's comments to the Conference on Disarmament:

"Unfortunately, in viewing these critical problems, some people come to despair, believing that no solution whatever is possible.

* * * * * * *

"To be sure, arms control is often a painfully slow process. But that should strengthen, and not lessen, our resolve to build, stone by stone, and step by step, the firm foundation for lasting arms control which can enhance stability. We cannot abandon this goal. We must never obscure it."

Mr. Chairman, our goal is the total elimination of chemical weapons everywhere in the world. I pledge that the Arms Control and Disarmament Agency will continue to work diligently and expeditiously to achieve this goal. We look forward to your advice and support as we pursue these negotiations.

I would be happy at this time to respond to any questions that the committee might have.

Chairman GOLDWATER. Senator Glenn, do you have questions?

Senator GLENN. Yes, I do. Thank you, Mr. Chairman.

I want to get into some specifics.

Dr. Welch, I read your statement this morning and re-read it a second time. It is an excellent statement and I am glad we can include it in our record. I would encourage all our colleagues to read that.

What types of agents do the Soviets have?

We talk about nerve gas. There are lethal nerve gases, so-called befuddlement or comprehension gases.

GASEOUS AGENTS POSSESSED BY SOVIETS

Could you tell us what kind of different agents the Soviets have?

Dr. WELCH. I can tell you, sir, to the extent that security permits. We credit the Soviet Union with the World War I gases, mustard, blister gases, the blood gases, hydrogen cyanide.

Those are lethal and they are still part of the stockpile they possess. They don't seem to throw these things away.

Second they are credited with at least three different nerve agents, all of which are lethal.

Senator GLENN. Over what period of time, seconds or minutes or days?

Dr. WELCH. Over seconds if the victim is within a short distance of where the attack takes place.

We credit them with a persistent agent. We are quite certain they would put down thickened GD or thickened nerve agent. This is what these missiles you heard about would put down on an airfield.

We are talking about rain drops, toxic rain coming down of the consistency of molasses which would last 3 days to 3 weeks.

Senator GLENN. Is this high up in the air current and only comes down in precipitation?

Dr. WELCH. It would be a burst of maybe a 1,000-pound missile warhead and it would rain down taking a few minutes to hit the ground, but it would come down within a few minutes.

Senator GLENN. Will any of the gases they have go through the protective clothing we have seen here?

Dr. WELCH. None of the known agents I have mentioned will defeat the protective gear you saw here.

Senator GLENN. How about other agents?

Dr. WELCH. I can address that, sir, in closed session.

ANTIDOTES AND NEUTRALIZING AGENTS

Senator GLENN. How about our antidotes to these things and neutralizing agents? Do we have sprays that will neutralize a large area as opposed to individual protection we saw here this morning?

Dr. WELCH. We have chemicals known as decontaminants that once they are in contact with the Soviet agent will turn it into a nonlethal chemical.

The difficulty is that for every drop they put down on you it takes a drop of decontaminant to neutralize it. It is a logistics heavy kind of problem. If it is over an area of a few square miles, that means you have to flood that area with decontaminant.

Senator GLENN. From time to time somebody puts something in the reservoirs of this city and we get something of a short nature.

Do we give them the capability of putting pills in the water that would contaminate New York or any other major city?

Dr. WELCH. In my judgment, they have that capability. Of course, I can't answer that very specifically. But, yes, they have it.

Senator GLENN. Mr. Chairman, I would suggest sometime we get information to be included in a classified report or we get this type of information so that the committee has it available.

Chairman GOLDWATER. I have already asked the staff to ask the CIA for all the information that we heard in a highly classified meeting last year.

Frankly, I see no reason for its carrying a classification. We will try to get that.

BIOLOGICAL WARFARE

Senator GLENN. Regarding the biological warfare we hear about, what are the Soviets doing in the way of crop diseases, human disease, animal disease that can be spread by shells, or whatever?

Dr. WELCH. There is no question certainly we can say we believe they have an ongoing program.

Furthermore, we believe it is very much in violation of the Biological Weapons Convention that we signed and the Soviets have which prohibit even the possession of biological weapons.

We do not possess and will not possess biological weapons.

Senator GLENN. I don't know whether you can address it in open session, but can you tell us about some of the rumors of years past, about their being able to take an airplane at low altitude and spray, say, 300 miles and that would drift downwind and create crop disease over an area of perhaps 1,000 square miles or so?

Do you give them that capability?

Dr. WELCH. Yes, sir, we do, without question.

Senator GLENN. What about human or animal disease?

Dr. WELCH. In my judgment, they have that capability. There is enough evidence before my eyes to say that is the case.

Senator GLENN. Do we have proof of that? Do we have proof positive or do we say that we think they are experimenting along these lines?

Dr. WELCH. Sir, what I have seen gives me enough confidence to conclude they do have an ongoing biological warfare program. That is not only my conclusion, but also that of Arcady Schvchenko, former Deputy Under Secretary of the United Nations, and a

Soviet diplomat, who has recently written a new book expressing this conclusion.

There are other indicators in the open press, the incident at Sverdlosvk where we saw a great deal of casualties in that city having all the appearances of an anthrax infection.

Senator GLENN. How much work are we doing as far as neutralizing agents and injections such as he showed us this morning?

Are we doing much research in that area?

Dr. WELCH. Yes, sir. Nearly 75 percent of what DOD is asking for this year is defense and includes a great deal for medical therapy, a great deal for improved decontaminant.

One of the difficulties with all of this, and you heard it from soldiers up here, it is very difficult to make an antidote for an agent if you don't know what it is.

Senator GLENN. Are we developing the agent so that we know how to develop the antidote?

Dr. WELCH. We are leaning very heavily on the intelligence community to make sure we know what the Soviets are doing.

Senator GLENN. Are we trying to develop those same agents ourselves?

Dr. WELCH. Only to the extent of medical therapy, thimble size amounts, to see the effect on animals such as rats and other lower order animals.

Senator GLENN. Would this give us the capability of developing the same type of material? If we can produce it in thimble size, we can produce it?

Dr. WELCH. We can produce new chemical agents. There is a restriction to which we are bound. Strictly biological, we are not doing anything in that area.

NERVE GAS SAFETY PROBLEM

Senator GLENN. On our specific stocks of nerve gas now that are being taken out of stock, how dangerous are they now on the bases where they are stored?

Dr. WELCH. We don't believe we have a safety problem. There is no question, however, that we have a safety concern. We are asking for $200 million this year to destroy those that are most prone to leaking. These are M-55 rockets stored in the United States.

Senator GLENN. Are those shells actually leaking?

Dr. WELCH. A few of them actually are, but we are spending $50 million a year to maintain and watch over these things. As soon as we see any indication something has leaked, we immediately seal it in another container and then destroy it.

DEPLETING NERVE GAS STOCKPILE

Senator GLENN. How fast is our stockpile being depleted?

Dr. WELCH. I guess I would answer that question this way. We do not have a usable retaliatory capability.

Senator GLENN. None of the stockpile is usable at this point?

Dr. WELCH. In my judgment, it is not. It is not usable on the battlefield. What I mean by that is this.

If chemicals are used against us and if this President or another President tells us to retaliate, General Klein and General Otis and others certainly will. But it gets back to our telling them you are going to fight that 1985 war with 1955 equipment.

It was designed for a different war for a different fight plan. They are going to suffer because of it.

Senator **GLENN**. The shells we have right now, the unitary shells, are fireable?

Dr. **WELCH**. Yes, sir.

Senator **GLENN**. In existing weapon systems?

Dr. **WELCH**. Yes, sir.

General **KLEIN**. Ten percent in the stockpile are useful shells.

Senator **GLENN**. Ninety percent of the deterrent nerve gas shells we have now are not usable?

General **KLEIN**. Most of the stockpile is not in shells, sir.

Senator **GLENN**. I am talking about existing shells ready to go in weapon systems.

What percent of those would be usable?

Dr. **WELCH**. You are talking about the artillery shells, sir?

Senator **GLENN**. Yes.

Dr. **WELCH**. We can fire them all.

Senator **GLENN**. Those are the ones you had to take out of service because they are leaking or in danger of leaking?

Dr. **WELCH**. No, sir, those are not leakers. The leakers are in M-55 rockets.

Chairman **GOLDWATER**. Your questioning leads me to believe that General Klein can become the General Custer in modern days.

Senator Warner?

MILITARY STOCKPILE OF U.S. CHEMICAL AND BIOLOGICAL WEAPONS

Senator **WARNER**. If we might follow along that line of questions and using a different word. We use the word stockpile. I suggest we use the total military inventory of the United States of chemical and biological weapons.

Now, put the percentages on that. I am talking about what is in Europe and all the way back through the pipeline.

General **KLEIN**. That is all included when we say 10 percent.

Senator **WARNER**. When you say stockpile, you essentially mean total U.S. military inventory of this category of weapons?

General **KLEIN**. That is correct.

Senator **WARNER**. Of that, only 10 percent is usable?

General **KLEIN**. That is correct.

Senator **WARNER**. That drives it home.

Dr. Welch, there is a very difficult issue that has to be addressed in the context of our moving ahead in the United States with the binary system and that is the ability to deploy that weapon system, once it is completed, in our forward areas, principally Europe.

To what extent can you address that problem and tell us what the status is today and the likelihood that in the framework of the next several years of our being able to put those weapons, the binary weapons, in the hands of our forward deployed troops?

Dr. **WELCH**. Certainly, sir, with the worldwide threat we see, the ability of our ships to forward deploy, as they forward deploy other weapons, is greatly enhanced with binary, especially the aircraft carrier.

For Western Europe we can certainly deploy forward in our ships, binary. The flexibility is there.

Senator **Warner**. Provided we are in international waters. If we are in territorial waters, we have a problem.

Dr. **Welch**. That is correct. We would never do that without the permission of another government permitting us to come in.

We should also remember that the Bigeye bomb is a deployable system even if it is kept in the United States. It can be moved in good quantities fairly quickly and have an effect on the enemy using it against us.

Senator **Warner**. In terms of moving it, it would have to be moved from Continental United States now to the area where it can be used quickly?

Dr. **Welch**. That is correct.

Senator **Warner**. It cannot be forward deployed with our air units at this time?

Dr. **Welch**. That is correct. That is why we need binary. It makes so much sense to have something that is safe.

Senator **Warner**. In view of other nations having reluctance to allow the United States to forward deploy to present bases, would it be your view that they would be less reluctant if it were a binary system as opposed to what is in the U.S. inventory today?

Dr. **Welch**. That is certainly my view and I would underline that in time of crisis.

Senator **Warner**. Those of us who have worked in this area for a number of years here in the Senate have received extensive classified briefings on what the Soviets are doing, principally by virtue of their training.

TRAINING OF SOVIET SOLDIER IN CHEMICAL AREA

Can you share with us today some of that information? In other words, the seriousness with which they are treating this subject.

There are officers in the Red Army that devote their full and total career to this subject.

Dr. **Welch**. Certainly there has been absolutely no letup in the training the Soviet soldier goes through in this chemical area.

Senator **Warner**. That includes training, as I understand, under live situations; in other words, using the actual weapons themselves, live weapons; is that correct?

Dr. **Welch**. Yes, sir, it is. They have indications that they have suffered casualties because of this realistic training.

Senator **Warner**. Do they not have a very substantial educational system for both officers and men?

Dr. **Welch**. Yes, sir, they do. It remains intact. The bottom line remains that the Soviet Union is the best prepared, most capable nation in chemical warfare.

Senator **Warner**. I thank the chair.

Chairman **Goldwater**. Senator Kennedy?

Senator **Kennedy**. Thank you very much, Mr. Chairman.

I want to apologize to General Kroesen and his colleagues for missing their presentation and I know General Otis and General

Donnelly here as well have made comments. I look forward to having a chance to review their testimony. It has been an interesting and helpful hearing.

As I understand from the earlier presentation, you have renewed the horror of the possibilities of releasing these kinds of weapons, whether it is in the area of chemical warfare or also in the biological warfare.

All of us are mindful there has been restraint by the United States in terms of doing testing and there have been initiatives by this administration in trying to table at least a proposal which is at the Conference on Disarmament.

There may very well be some difference among those who believe we might be able to get them to the negotiating table quicker by following a more expanded program than the current efforts being made and that is obviously something that will be debated and be discussed.

I don't think any of us who have some concern about the movement in this whole area or the further development of additional kinds of systems in this area are any less concerned about the dangers that it provides, not only in terms of our security, but also for people that would be affected by the release of these kinds of weapon systems.

U.S. CAPABILITY TO DELIVER CHEMICAL SYSTEMS

I would like to go back if I could and understand the responses to Senator Glenn and, I think, to Senator Warner about the state of the United States' capability in terms of the delivery of various chemical systems.

I am mindful that on February 1, Secretary Weinberger stated that for procurement of new artillery shells the need is not one of addressing a clear lack of military capability.

The United States possesses the stockpile of chemical nerve agent artillery shells similar to the proposed M-68 binary rounds that are compatible with the modern 155-millimeter and 8-inch artillery pieces. The quantity is in the range of sufficiency and is actually higher than the planned acquisition quantity for the binary projectile, the 155-millimeter and 8-inch shells still meet acceptable standards.

Do you agree with that assessment in that statement?

Dr. **Welch**. To the extent that it goes. We heard earlier today and Secretary Weinberger has made it clear also, Senator Kennedy, that the field has asked for three weapon systems.

One of those is artillery. To the extent that we have some of those artillery rounds today, we can use them. Even though they are short range, they are capable.

He also pointed out we have absolutely nothing to satisfy the need for an intermediate range system. We have nothing at all for the deep.

Senator **Kennedy**. The point I am getting at, and I think you are responding to, maybe we can be a little bit more complete, is the issue of the quantity or the delivery system in terms of what we have.

Dr. **Welch**. There is no issue on the delivery system. We can fire those rounds.

Senator **Kennedy**. Is the question the additional types of delivery systems? Do you want more advanced delivery systems in terms of intermediate potential, deep strike capability?

Dr. **Welch**. That is what we want.

CONDITION OF U.S. DELIVERY SYSTEM AND NERVE GAS STOCKS

Senator **Kennedy**. The point that was left uncertain to me in response to the earlier questions of Senator Glenn, what kind of condition our stocks were in, whether the issue was the delivery system or the stock themselves?

That is the question I want to get a response to.

Do you have recommendations in terms of the multiple rocket system?

Dr. **Welch**. Part of our budget submission asks for the continuation of the research and development needed to bring along the multiple-launch rocket system.

Senator **Kennedy**. Is that for production, too?

Dr. **Welch**. No, sir, that is at this point for research and development.

Senator **Kennedy**. You commented about the percent of the administration's request for, I guess, defensive systems indicating, I think, better than half or three-quarters were directed toward defensive systems.

In your judgment, is that adequate and are we not funding some of the areas that you think are priority areas?

Dr. **Welch**. That funding is adequate for defense. I think when you look back and see the times four and times five ramp up we have had in the area of chemical defense, you have to question whether or not we can spend it wisely.

I think it is adequate. The single most effective investment we can make, however, has to be modernizing the stockpile. That takes a lot of the heat off the defense.

General **Klein**. I agree. The stockpile gives us what I would call questionable deterrence. Without ability to strike and hold the enemy at the same risk he holds you, we don't have what the Chairman of the Joint Chiefs has said is a credible deterrent. We do not have it.

Senator **Kennedy**. What about the adequacy of the defense research?

General **Klein**. I think that General Kroesen's group and others have pointed out that we perhaps have not done as well in that area.

RESEARCH IN DEFENSIVE GEAR

I think in the last year and a half we are pressing to increase the research in our defensive gear.

Senator **Kennedy**. Mr. Emery, are you very much aware of the administration's proposal that is at the Conference on Disarmament.

Mr. **Emery**. Yes, sir.

ISSUE OF VERIFICATION

Senator **Kennedy**. One of the key issues debated not only in this area of potential agreement, but in others is the issue of verification.

Clearly one of the most troublesome aspects of any verification is in the chemical area.

Could you elaborate a little bit about the verification techniques which are included in the administration's proposal and that is on the table at the Disarmament Conference?

Mr. **Emery**. I think I can. Obviously, many of the specific provisions are provisions that would have to be subject to negotiations. We have some ideas and our proposal as we have presented it embodies some of the ideas that we think are essential.

First of all, I mentioned on-site verification. We know that the Soviets have been historically reticent to allow inspection teams to move in and inspect facilities. We think it is quite significant that the Soviets have indicated some willingness to allow on-site inspection activity for stockpile destruction.

We have demonstrated ourselves at Tooele, UT, the way this can be done and done very effectively. Our experimentation has devised a means by which existing bulk stockpile material as well as shells can be destroyed allowing at the same time measurement of the material before, during and after, which eliminates or at least greatly diminishes the probability that either whole shells or bulk storage material can simply be shunted off to some unknown recess for use outside of the agreement.

We believe that that kind of means, with the necessary equipment for monitoring as well as individuals from the accredited inspection team chosen under the treaty, be there on site to guarantee that no one is playing with the equipment or otherwise altering the data.

We are very encouraged that the Soviets have agreed at least in principle that this approach is acceptable.

The second area, of course, is monitoring the existence of known warehouses and known manufacturing facilities. We believe there would have to be some means to guarantee that a factory could not be easily and quickly rebuilt or converted into a facility that would manufacture chemical weapons.

That also we believe will require some on-site inspection. We hope that this is not a major obstacle. The Soviets have been silent on that point.

The third area is the one that is the most difficult. We believe that it is necessary to have some kind of verification scheme that will allow us or allow the Soviets or third-party observers, if you will, to determine whether or not facilities that they may become familiar with are in fact manufacturing fertilizer or other benign chemicals or whether they are in fact able or in the process of manufacturing chemical munitions.

ON-SITE INSPECTION TEAMS

That is the area which we refer to as the open invitation provision in our own draft that causes the difficulty because the Soviets have resisted this idea of on-site inspection teams roaming theoretically wherever they want to go on short notice.

We have told them that, first of all, we presented this idea because we think it is the most logical response to a problem, a problem that they probably worry about, too.

We have also told them that if they don't like this idea, we will be very happy to entertain concrete rational ideas that they might bring forward which are an honest and serious response to the problem. They have chosen not to do that.

We are hopeful that they may come through with some additional ideas that will allow us to move ahead and negotiate an inspection provision that will help in that regard.

Now, let me talk for a minute on measurement instruments, national technical means. The logical question is why do you have to have on-site inspections? Is it possible with modern technology to monitor atmospheric conditions, water runoff and that sort of thing?

The problem is that many of these agents break down in a rather short period of time, whether it is a nonpersistent agent that may deteriorate in a few minutes or even some of the persistent agents which may be around for days or even a couple of weeks.

The fact of the matter is that you can't be certain if you are trying to monitor by remote control hundreds or even thousands of miles away. It is not a simple matter of flying over with a satellite. You can't tell from a photograph whether they are manufacturing fortune cookies, fertilizer, or munitions.

You have to get instrumentation close enough so that you can measure material that may be emitted into the atmosphere or into the ground water relatively soon after manufacture. That is an extremely difficult thing to do.

Although we are continuing to look at ways to monitor trace elements of material, we have relatively little confidence that we can depend only upon equipment to monitor, let us say, clandestine manufacture or storage.

The use of instrumentation at the destruction site during a monitoring process, however, is very important because in that way you can measure the amount of munitions being destroyed.

The short answer to the question is that we feel that any successful chemical weapons treaty must involve an international inspection capability of some kind.

Senator **Kennedy**. I know my time is up, Mr. Chairman. I have two very brief questions.

Chairman **Goldwater**. Keep the answers brief.

Senator **Kennedy**. Then I will submit others.

VERIFICATION RESEARCH FUNDING

Are you getting adequate funding for the research in these areas of verification?

Mr. **Emery**. Yes, I think we are. It is an effort which is a shared effort between arms control and defense.

Senator **Kennedy**. Second, have any of the European governments agreed to positioning all—I pose this for Dr. Welch or General Klein—agreed to positioning all or parts of new binary systems on their soil?

Dr. **Welch**. The answer is that we have not asked any nation to accept forward deployment. We think, among other things, it is premature to ask them such a question insofar as we have not built this thing yet.

Senator **Kennedy**. To build it, though, would only make sense if they accept it.

Dr. **Welch**. We discussed the deployability of binary at length this morning and discussed the safety issue that comes with the separated components. This permits us, particularly in face of the worldwide threat, to forward deploy in Navy ships.

Senator **Kennedy**. The Navy has supported that?

Dr. **Welch**. Yes, sir, absolutely.

Senator **Kennedy**. I want to thank the panel. It has been very helpful.

Chairman **Goldwater**. Gentlemen, I want to thank you for this hearing. I think it is one of the best and most important hearings that this committee has held and will hold this year.

I became very, very interested in this during the portion of the intelligence hearing when we went thoroughly into all the deficiencies of our chemical capability. I am going to ask the intelligence family if they will downgrade the classification, I see no reason why they shouldn't, and we can make that a part of the record.

I have been sitting here trying to think of the name of a good novel that I read that tells the story of a Russian scientist who developed a germ that if dropped in the drinking water of the United States could within a week kill everybody in the United States. I can't think of the name of it. I advise you to go out and buy it because it is very interesting.

In this novel, the President did away with the possibility of that when he was finally convinced that they were going to do it and he ordered an atomic bomb dropped on an airport up in Vladivostok from which a Bear was taking off.

I would like to thank the enlisted men who participated in this, I would like to thank the young officer, a graduate of the Air Force Academy, the pilot, and I want to thank all of you gentlemen who have come here today.

You have given us very, very fine testimony. On top of that it has given us a chance to see some old friends.

[Questions for the record follow:]

QUESTION SUBMITTED BY SENATOR BARRY GOLDWATER

Senator **Goldwater**. What are the prospects for real progress in the negotiations if the Congress fails to approve the production of modern binary munitions?

Mr. **Emery**. Soviet behavior at the CD has been that of procrastinating on any serious CW negotiations. While in public they lay loud claim to their acceptance of the principal treaty prohibitions, they show little inclination in private to negotiate the details which will make a treaty possible. In our opinion, they are clearly demonstrating their lack of initiative to negotiate. As the situation now stands, the U.S. CW capability is not enough to deter the Soviets from using CW in a European war. They therefore have in CW a clear military advantage. World opinion is obviously not strong enough an incentive to force them to negotiate away that advantage and as long as we do not have that credible deterrence, the Soviets will have no other incentive to negotiate. Unless we can supply that incentive, we see little hope for real progress in our CW negotiations in Geneva.

QUESTIONS SUBMITTED BY SENATOR DAN QUAYLE

Senator QUAYLE. The IDA Study Summary Report distributed to the committee (page 3) notes that "We need more information to determine the scope and range of Soviet capabilities, and certainly of Soviet intentions." The critical need to improve our intelligence in this field also was reported to have been emphasized both in a recent CIA report on chemical and toxin weapons (Washington Post 30 November 1984, page E-7) and in an internal audit done last year in conjunction with the President's first report to Congress on Soviet Noncompliance. It was for this reason that I sponsored an amendment to the Defense Authorization Act requesting a report on biochemical warfare verification and intelligence budget requirements. What progress is being made on this report? It was due December 31, 1984; when you expect it to be done? What progress is being made on this report? It was due December 31, 1984; when do you expect it to be done?

Mr. EMERY. Our report in response to Senator Quayle's amendment has been drafted and is now being circulated for final agency clearance. We expect to be able to forward it to the Congress shortly.

QUESTION SUBMITTED BY SENATOR SAM NUNN

Senator NUNN. Other than going forward with the binary production program, is there anything else that can be done to persuade the Soviets to respond more positively to the U.S. draft treaty proposal?

Mr. EMERY. As mentioned above, the problem is that of Soviet incentive. We are using the forum of the 40-nation Conference on Disarmament in Geneva as a method to increase world pressure on the Soviets to accept a comprehensive CW treaty. At the same time, we are using other forums, such as the UN, to keep the pressure on.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

Senator LEVIN. We always hear we need binary weapons to be successful at the chemical weapons arms talks. What hard evidence do you have of this—any Soviet intelligence, etc? Do our NATO allies share this view; have we asked them? Have any other nations at the Committee on Disarmament agreed with this position publicly or privately?

Mr. EMERY. Intelligence on Soviet intentions is not a subject that I am prepared to discuss in an open forum, but I can say that our NATO allies share our perception that the Soviets have a clear military superiority in CW. NATO has recognized the need for a CW retaliatory capability as a deterrent against Soviet CW use. Several of our allies have privately expressed their views that the modernization of the U.S. stockpile will be an important step in providing the Soviets with incentive to negotiate.

Senator LEVIN. It has been reported there has been some progress on on-site inspection issues with the Soviets at the chemical talks. If so, and since this comes about without binary production, doesn't this contradict your position?

Mr. EMERY. As Congress is aware, we conducted a workshop at Tooele Army Depot in 1983 during which we demonstrated the feasibility of our proposals for verification of the destruction of chemical weapons. Following this workshop, the Soviets agreed to accept part of our proposals in this regard. We are starting to plan another similar workshop to demonstrate monitoring techniques on an inactivated CW plant. That will be for 1986, however, and even if the Soviets accept our proposals on this issue, this is but a small step on a very long road. The basic problem is a lack of Soviet willingness to accept international on-site inspections in general, and a major change in their position must occur before real progress is possible. For them to change their position will require providing them some incentive to do so, which brings us back to the stockpile modernization program.

Senator LEVIN. Wouldn't it be more effective to renew bilateral talks with the Soviets on chemical weapons arms control, as opposed to continuing in a 40-nation negotiation? The US and USSR are the major chemical powers. Why shouldn't they strive first to reach agreement as opposed to trying to bargain with so many other states in a forum more exploitable for propaganda than for real negotiations?

Mr. EMERY. We tried for four years to negotiate a treaty bilaterally with the Soviet Union, from 1976 to 1980. These talks foundered, however, on Soviet failure to move on the verification issue, particularly on on-site inspections. Since then, we have moved the center of our focus to the 40-nation Conference on Disarmament, and despite continued Soviet obstructionism, some progress has been made on negotiating a comprehensive, multilateral treaty. The Conference itself has reached general agreement on many of the main provisions of the treaty and has been generally successful in coalescing the broad support necessary for such a treaty. Successful monitoring and inspection to increase confidence in treaty compliance is not a simple matter; it has both political and technical components that become increasingly complicated. Working within the multilateral forum gives us a way to bring a wide variety of talent and ideas together to solve these problems. In the solution of these problems, we are able to demonstrate the feasibility of our proposals and to undercut Soviet obstructionism. However, we are painfully aware that despite the benefit we derive from the support of numerous other CD members, with our CW stockpile deteriorating and deterrence decreasing, the Soviets have less incentive to negotiate seriously now than they had in 1980.

Senator GOLDWATER. The committee will stand adjourned.

[Whereupon, at 12:39 p.m., the committee adjourned, subject to the call of the Chair.]

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